INTERNATIONAL SCHOLARS JOURNAL OF ARTS AND SOCIAL SCIENCE RESEARCH

ISJASSR

VOLUME 3, NUMBER 1, NOVEMBER 2020

Multimeans Media International, Journals Division

International Scholars Journal of Arts and Social Science Research – ISSN: 2705-1528,
An interdisciplinary journal, published in collaboration with a small group of researchers.
All articles are available free at: https://www.theinterscholar.org/journals/index.php/isjassr

Editorial Board

To ensure constructive review process and objective decision making, *International Scholars Journal of Arts and Social Science Research* professional staff editors work in partnership with a distinguished international Editorial Council.

ABOUT THE JOURNAL

International Scholars Journal of Arts and Social Science Research (ISJASSR), is a peer reviewed journal dedicated to disseminating research in all areas of the arts and social sciences but with special interest in papers that have significance for public policy making and those which explore the continued relevance of the arts and social sciences to societal development and modern economies. ISJASSR is published quarterly by Multimeans Media International in collaboration with a small group of researchers who manage it. However, there may be special issues dedicated to a current topical international question between the quarterly editions. Editors of the Journal, guest editors and known scholars in the fields covered by the journal are eligible to arrange with the publishers from time to time, for the creation of a special issue on a topic of public concern around the journal themes.

The journal provides Print-on-Demand service for authors who require printed copies of their article(s) in a book format. Each printed book contains a minimum of ten articles. If there are less than 10 articles in an issue, other articles from previous issues will be added.

The cost per book is $30 USD (excluding cost of delivery).

To request a print copy of an article, please contact the journal admin (admin@theinterscholars.org)

AUTHOR'S GUIDELINES

International Scholars Journal of Arts and Social Science Research (ISJASSR) publishes original research, review articles, case study, perspective, opinion, commentary and book reviews.

1. Authors should indicate if they are submitting original research, review articles, case study, perspective or book review.

2. Your manuscript should not be less than 3500 words and should not be more than 15000 words.

3. Author (s)' details must be on a separate document file containing the title of the article, full name (s), status, institutional affiliation, e-mail address, phone number and full postal address. The author should not be identified anywhere else in the article.

4. Abstracts more than 250 words cannot be uploaded during the submission stage.

5. Figures, charts and diagrams should be numbered consecutively with roman numerals and a brief title

6. The journal accepts both the APA and MLA Citation Styles. However, author (s) must be consistent with any of the two chosen

7. Final submission of article. Once accepted for publication the final version of the manuscript must be provided within 7 days, accompanied by the publication fee of $150 USD ($65 USD for developing countries). The author (s) must ensure the final submission is complete, grammatically correct and without spelling or typographical errors.

ALL CORRESPONDENCE REGARDING SUBMISSION AND PUBLICATION TO:

Editorial Office: editorialoffice@theinterscholar.org

CONTRIBUTORS TO THIS ISSUE

Falk Mueller,
Faculty of Economics and Management, Leipzig University, Leipzig, Germany
Flavio Squartini
Faculty of Economics, La Sapienza University of Rome, Rome, Italy
Ekwere A. Umoeshiet, PhD,
Department of Business Education, Delta State University, Abraka, Delta State, Nigeria
K.R.E. Okoye
Professor of Electrical/Electronics Technology, Department of Technology and Vocational Education, Nnamdi Azikiwe University, Awka, Nigeria
Emeghebo, Anneth Ndidiamaka, PhD Candidate
Department of Technology and Vocational Education, Nnamdi Azikiwe University, Awka
Anaehobi, E. S., PhD,
Department of Library and Information Science, Nnamdi Azikiwe University, Awka
Odume, Chinonso Stella,
Department of Library and Information Science, Nnamdi Azikiwe University, Awka
Lina Lafta Jassim, PhD,
Department of English Language, College of Arts, University of Thi-Qar, Iraq
Onojaife, Caroline Azuoma, PhD
Department of Office Technology and Management, Delta State Polytechnic, Ozoro, Nigeria
Godwin Onuh ODEH, PhD
Department of History, Sokoto State University, Sokoto
Geno Ardo,
Department of Sociology, Sokoto State University, Sokoto
Samaila Shehu Sifawa.
Department Of Sociology, Sokoto State University, Sokoto
Tumba Ardo
Department of Political Science, Sokoto State University, Sokoto
Muhammad Buhari Nuhu
Department Of Sociology, Sokoto State University, Sokoto
Kanayo Nwadialor, Ph. D
Department of Religion and Human Relations, Nnamdi Azikiwe University, Awka
Ifeoma Bernice Ogbuji, Ph. D
Department of Religion and Human Relations, Nnamdi Azikiwe University, Awka

TABLE OF CONTENTS

Cryptocurrencies: Threats and Applications from a Monetary Economic Perspective

By

Falk Mueller
and
Flavio Squartini

Abstract*: Over the last years, cryptocurrencies gained attention from all over the world. However, one of the main reasons for their popularity, namely their independence from Central Banks and politics, might similarly impose severe threats to the financial system. The aim of this paper is to consider cryptocurrencies from a monetary economic standpoint by assessing what sets them apart from fiat money and why they might impose risks on existing financial systems and players. Based on that, we assess their current and potential application in practice by observing their traits as investment object, their ability to act as a safe haven and as a medium of exchange in cross-border trade from a traditional monetary economic point of view. Finally, this paper analyzes whether cryptocurrencies could serve as money in a traditional sense, hurdles they needed to take and potential implications of their implementation. Based on our assessment, their current functioning as currency in a traditional sense is still very limited so far, whereas regulatory forces will closely monitor and attempt to prevent unwanted developments. Consequently, their most promising field of application rather lies in other areas of application, especially in cross-border trade, as their unique characteristic bringing considerable potentials for saving intermediary and exchange costs. However, if States and Central Banks are capable of maintaining and improving all functionalities of fiat money, to keep it transparent, stable and technically up-to-date and to meet the demand of publicity, the desire to hold cryptocurrencies as alternative currencies might become obsolete.*

Introduction

Over the last two years, cryptocurrencies (CCs) gained attention from all around the world leading to absurdly high valuations that gave birth to a speculative bubble. The issue of decentralization and the self-defining safety connected to the distributed-ledger technology behind them put them under the lens of many economists wondering if we were dealing with the future of money. Similarly, their fast growth fueled the fear that they might impose severe risks on the financial economic system, which is further enhanced by the states' and Central Banks'(CBs) incapacity to control their development, hence to take supportive or corrective monetary measures.

Taking their general characteristics as a starting point, this paper describes the underlying concepts behind CCs, why they became that popular, what sets them apart from fiat money and why they might impose risks on existing financial systems and players. Based on that, we assess their current and potential application in practice by observing their traits as investment object, their ability to act as a safe haven and as a medium of exchange in cross-border trade from a traditional monetary economic point of view. Finally, this paper analyzes whether CCs could serve as money in a traditional sense, hurdles they needed to scale and potential implications of their implementation. Based on that, the paper provides some advice for monetary politics how to deal with upcoming issues on that topic.

General Information and Development of Cryptocurrencies

a) Definition and general characteristics

A CC is defined as *"*a digital currency in which encryption techniques are used to regulate the generation of units of currency and verify the transfer of funds, operating independently of a central bank*"* (Oxford Dictionaries 2018). Nowadays, there are more than 2,000 different CCs in the market, launched throughout the last nine years, compared to just 179 official currencies in the entire world. The best known CCs are certainly Bitcoin, Litecoin, Ripple and Ether. Although they do not possess a mentionable intrinsic value, they gained huge popularity over the last years, which is predominantly because CCs are decentralized, do not require intermediaries and are designed to be scarce. Therefore, they were regarded as very innovative when they appeared on the market in January 2009.

b) Decentralisation approach

In contrast to fiat money, CCs are sustained by mathematical equations, rather than the trustworthy word of a government or a CB (Starting Finance 2016). This makes them decentralized, meaning that there is no regulating authority behind them. Consequently, there is no possibility for official agencies to take corrective monetary measures when needed, as discussed later on.

Redundancy of intermediaries and the blockchain as underlying technology

The lack of a guaranteeing authority behind the CCs makes it possible to conduct transactions without the involvement of any intermediary. The users can directly exchange CCs on their devices. Thanks to a peer-to-peer system (in this context, a P2P network is an interconnected system, in which *"the 'peers' are computer systems that are connected to one another via the Internet; files can be shared directly between systems on the network without the need of a central server"* (TechTerms 2018)). And in order to ensure the legitimacy of transactions, complex mathematical equations are used to link each account. This system is called blockchain, which is essentially an accounting book of all transactions made in a CC from the very first one up to date (Starting Finance 2017). Supposedly, this should make it impossible to hack, even if we know that there were some hackings during the past years.
Initial scarcity.

Coming closely along with their decentralized sourcing, CCs are designed to be inherently rare, since the total amount of a particular CC existing in the network is set from the beginning by the programmers. In this context, their inflation grows at a controlled rate, which equals the amount of produced currency units per period (Starting Finance 2017). As only the miners can exert influence on the amount of tokens produced, it is almost impossible to pointedly stimulate the money supply of a CC making them hardly influenceable for monetary policies.
Market value
CCs do not have a mentionable intrinsic value since they are not linked to the availability of physical goods, such as gold, which might be the most striking feature in terms of their price

development (depicted in the next paragraph). Without any official authorities behind them, very limited usefulness as mean of payment, no apparent usage or field of application yet and no connection to the mining company (as tokens do not represent a share in the mining entities), their value is only determined by the market participants' believe in them and thus by laws of supply and demand. Apart from factors that influence the price development of almost all asset classes, the value of CCs is especially (esp.) driven by their inherent scarcity, market participants' mistrust in the traditional financial system and their belief in the innovativeness of the individual blockchain technology underlying each CC (although that is technically not related to the tokens issued). The characteristics of CCs from an investment perspective will be outlined later on.

c) Development of their market capitalization

Thanks to their popularity, the value of most CCs has been skyrocketing over the last years, esp. in 2017 and early 2018. Whereas the accumulated market capitalization of all CCs equaled ca. USD 18 bn. in the beginning of 2017, it reached its peak in January 2018, when the total market capitalization of all CCs reached ca. USD 830 bn. (coinmarketcap.com), which equals 3% of the accumulated market capitalization of all S&P 500 companies.[1] But since the end of last January, the market value of most CCs decreased tremendously, flattening the crypto hype around the world, and now it lowered to around USD 140 bn. (as of 29/11/2018, compare figure 1).
This plunge was mostly due to geopolitical factors. In fact, some countries blocked the access to websites to trade CCs and announced their intention to regulate the market, due to the fear of the flight of capital. On top of this, major CBs in Europe, including the ECB, reduced the value of CCs to *pure speculation* and warned that the crypto bubble would burst soon (Forbes 2018). All these factors spread fear in the market and pushed investors to close their positions.

Application in Practice and its Implications

a) Cryptocurrencies as an asset class and investment object

Throughout the last years, CCs conveyed the impression to be rather another asset class than an actual currency, and since Bitcoin futures are finally tradable at major financial exchanges, at least Bitcoin (as most popular CC) can be considered as mainstream investment object. In this context, CCs reveal some very specific characteristics that set them apart from most other asset classes. So, the return of CCs is not (significantly) correlated to traditional asset classes such as currencies, commodities or stocks (Liu & Tsyvinsk 2018) and is hardly influenced by macroeconomic factors like inflation expectations or exchange rate developments (Bianchi 2018). Based on that, CCs should be of high interest for investors, esp. due to their diversification potentials.

In addition to that, in terms of their liquidity and tradability, the underlying blockchain networks guarantee a high degree of transparency and safety while trading. Nevertheless, for most CCs, this unavoidably comes along with relatively slow transaction speeds and relatively high costs compared to established payment systems (Wuermeling 2018). In addition to that, as characteristic for currencies or commodities, there is no interest paid on holding them – the

[1] In this context, this tremendous increase is attributable to both the appreciation of existing CCs as well as the emergence of new ones.

yield is only generated through increasing courses, which turned out to be heavily fluctuating throughout the last years. Apart from the high volatility, CCs inherit the additional risk that they can only be held in hacking-prone digital wallets reveling severe security problems. Those serious risks represent the main reason why many official agencies, such as the EU financial regulatory authorities, warned against investing in CCs or even imposed constraints on the trade with them (Wuermeling 2018).

b) Current applicability and potentials

When it comes to practical usage in everyday life, the practicality of CCs as a mean of payment is very limited, as profoundly depicted in the following chapter. Nevertheless, it appears indeed that CCs might be functional when it comes to money transfer.

c) Safe haven

CCs are often perceived as a way to store money in countries with an unstable economy and uncertain political conditions. Mistrust in their government and high inflation rates, for instance, currently incentivizes many people in Turkey, Venezuela, but e.g. also in China, to search for alternatives to store their money's value. Consequently, CCs, despite their high volatility, gained attractiveness in those countries, acting as a "safe haven". In this context, it is the aspect of decentralization and independence from traditional financial or governmental institutions that people value most, as they often lost their trust to those players. Similarly, the anonymous processing of data in the blockchains somewhat protects them from their states' tax prosecution, which de facto makes CCs a mean of tax evasion, money laundering or terror financing, providing reason to governments impose restriction on them (Wuermeling 2018).

d) Medium of exchange in international trade

The most promising field of application, however, might be found in international trade. So, due to the exclusion of financial intermediaries, much time for transactions could be saved, transaction and intermediary costs lowered and the exchange of foreign currencies would become unnecessary. Similarly, the underlying blockchain technology provides a high degree of transparency as a track of records (coming along with the potential to reduce corruption) and provides numerous connecting points to the concept of smart contracts, which shows huge potential for automating administrative aspects of cross-border trade (Bambrough 2018). However, due to their volatility and very limited usefulness as mean of exchange (as depicted later on), this field of application still represents a future vision.

Cryptocurrencies and their Functionality as Money

The main question that comes along with the emergence of CCs is whether they will be capable of replacing fiat money as the major mean of payment. A very schematic way in order to approach this question is to check whether they fulfill the main functions of money. Firstly, money serves as a medium of exchange facilitating transactions so that market participants can agree on the value of products and services (Deutsche Bundesbank 2018). Considering that there are some (online) shops accepting CCs (especially, Bitcoin) and that there are about one

million CC transactions conducted every day, this indicates that CCs *de facto* serve as a means of payment among some market participants. Nevertheless, as the purchasing power of CCs in everyday life is still very low and as there are no official authorities guaranteeing the acceptance of CCs, their usefulness as medium of exchange is limited.

Secondly, money serves as a store of value, which implies that money should be sufficiently stable in order to sustain value over time (Deutsche Bundesbank 2018). As the value of CCs, however, is predominantly based on the laws of supply and demand, they underlie heavy price fluctuations, which largely limit their usefulness to store money. Additionally, they are still virtually valueless if they cannot be converted into official currencies and cannot be stored in a bank or save environment but only in hacking-prone digital wallets, which further limits their ability to maintain value safely over time.

Thirdly, a currency is supposed to work as a unit of account so that the value of assets and goods can be expressed in a standardized unit of reference, which makes them comparable to each other (Deutsche Bundesbank 2018). Given that CCs show very unstable price developments, are traded at different price levels on different exchanges and do not get centrally aggregated (Jamali, Li & Pantoja 2016), their applicability as unit of account is still limited.
From those considerations, we can conclude that CCs do not meet the criteria to serve as "real" currencies, which is predominantly attributable to their presently high volatility as well as their missing official recognition.

Hurdles in the Implementation Process and Potential Implications

However, even if the value of CCs stabilizes, which would significantly increase their functioning as money, there are still numerous hurdles they need to take in order to become established means of payment.

Therefore, a transition to CCs would both require and cause tremendous changes in the financial system and infrastructure, which would redefine the role of traditional financial institutions. The importance of banks as intermediaries would probably decline and new players, especially miners and blockchain technology providers, could gain market power. In other words, there would be a shift from a highly regulated and supervised financial market to a rather free market environment, as players in an international CC market cannot be effectively controlled by national jurisprudence. Thus, in order to be effective, regulation needed to be agreed upon on an international level, which in turn might prove challenging due to different market characteristics and diverging country interests (Wuermeling 2018).

In addition to that, if CCs replaced traditional currencies, the latter would depreciate heavily leaving numerous, particularly less fast adapting market players, such as small enterprises or private savers, with a considerable loss of their assets and savings.

When assessing whether CCs could finally replace fiat currencies, it needs to be taken into account that national governments are still vital for setting the legal framework for CCs. In this context, there are multiple reasons why it seems improbable that local governments will give up their control over domestic currencies. Therefore, the decentralized and anonymous data

processing in most blockchains provide the foundation for tax evasion, which is certainly not in favor of the government as tax sovereign. Apart from that, succinctly put, CBs would lose their power to intervene with monetary measures to undesirable developments. For instance, accommodative monetary policies in order to support the economy, or affecting the exchange rates of their domestic currencies would not be possible. Furthermore, CBs could not correct inflationary or deflationary tendencies any more, hence price stability in a traditional sense would not lie in their field of responsibility any longer and the mode of action how CBs work would change considerably.

Advice from a Monetary Policy Point of View

Right now, the economic footprints is relatively small and their interconnectedness to the remaining financial system, their influence on price formation processes and their usage for transaction purposes is very limited (Wuermeling 2018). Nevertheless, if their importance increases, regulators should be attentive, as CCs impose the threat to amplify the risk of leverage trading and to intensify the transmission of economic shocks (Lagarde 2018).

In this context, it is especially the blockchain technology that provides huge application potentials, particularly in order to guarantee efficient, transparent, safe and liquid market infrastructures. Similarly, some CBs even consider to launch own digital currencies, primarily in countries where cash loses importance. The launch of digital CB money, however, might impose severe interferences in the banking sector as starting point for monetary policies and challenge traditional concepts of monetary measures (Wuermeling 2018).

In the end, it is the question to which extant governments should intervene in the market and in the free banking system, CCs operate in order to keep their monopoly on money and their CBs' power to take monetary measures. If states and CBs are capable to maintain and improve all functionalities of fiat money, to keep it transparent, stable, technically up-to-date and to meet the demand of publicity, e.g. to enable real-time transactions, the desire to hold CCs as a real alternative *currency* might become obsolete (Wuermeling 2018).

Conclusion

In conclusion, we can state that the number of CCs and their value have been skyrocketing over the last years. It is especially their decentralized sourcing, independence from intermediaries, CBs and politics as well as their inherent scarcity that explain their popularity – even though they do not possess a mentionable intrinsic value and show heavily fluctuating prices. At this moment, their high volatility and their missing recognition as mean of payment limit their functioning as currency. Additionally, national governments will most probably refrain from giving up their control over domestic currencies – especially for tax reasons and their CBs' sovereignty to take supportive and corrective monetary measures. For those reasons, it currently seems relatively improbable that CCs will replace fiat money in the short- and midterm.

Coming along with that, the most promising fields of application for CCs are not related to their usage as real *currency* but rather as safe haven for investors and savers from unstable countries as well as medium of exchange in cross-border trade, as their unique characteristics bring considerable potentials for saving intermediary and exchange costs.

Although their interconnectedness to the financial system and their economic footprint is still relatively small, they impose huge challenges for traditional players to adapt their business models in order to keep up with technical developments. Similarly, if CCs become more integrated in the financial landscape, they might amplify the transmission of shocks, wherefore regulators should carefully monitor their development.

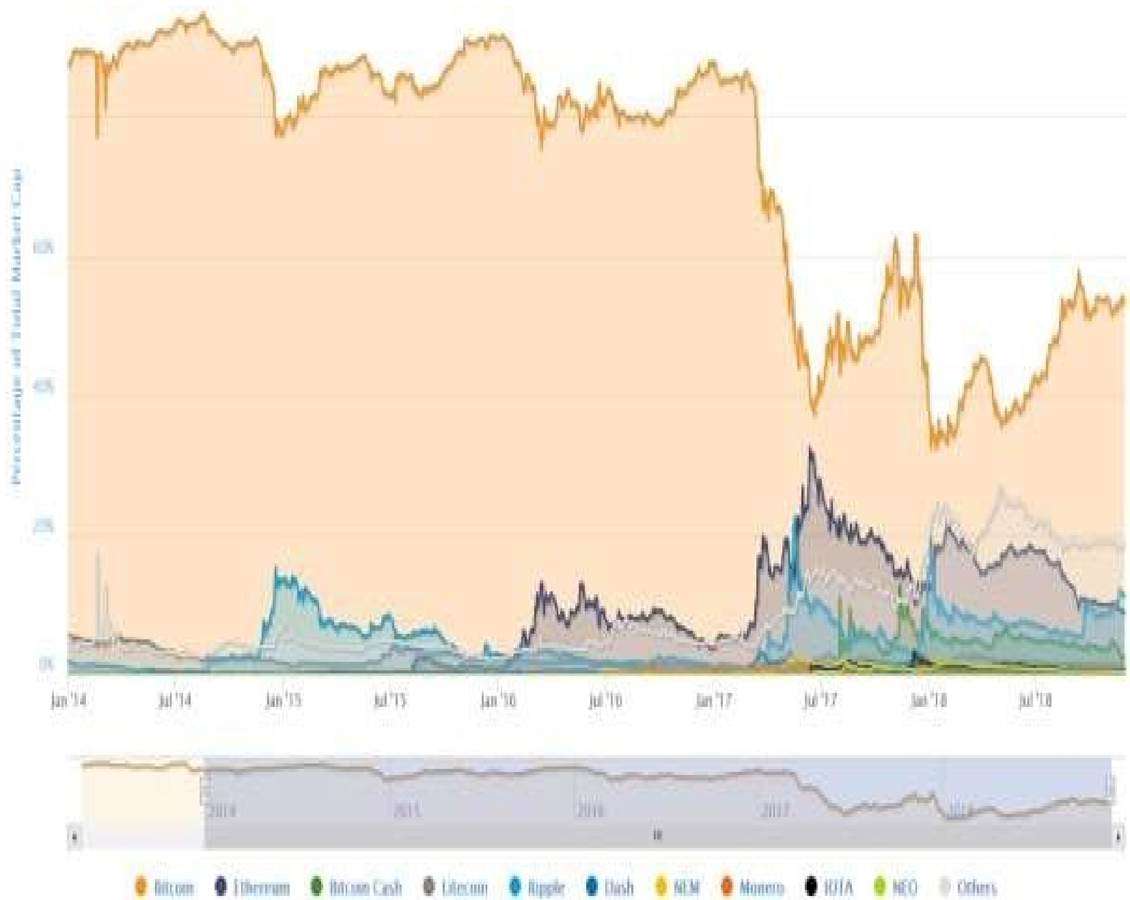
In the end, there are certainly only a few CCs, probably the most stable ones that will succeed to become a mean of universal use – the vast majority of the 2,000 CCs will most probably vanish. From a current point of view, however, fiat money is obviously superior over CCs in most areas of application. And if states and CBs are capable to maintain all functionalities of fiat money, to keep it transparent, stable, technically up-to-date and to meet the demand of publicity, the desire to hold CCs as a alternative *currency* (in other areas than cross-border trade) might become obsolete.

Appendix

List of Abbreviations

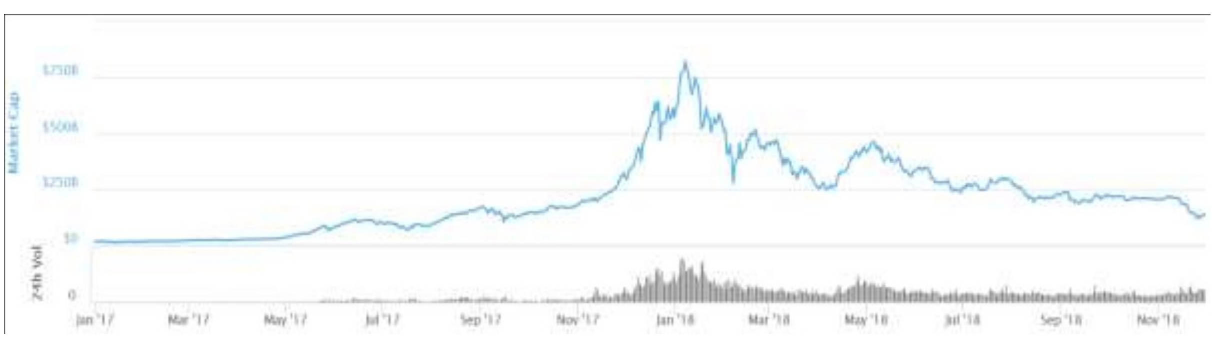
BN	-	Billion
Ca	-	circa
CB`	-	Central Bank
ECB	-	European Central Bank
ed.	-	editor
e.g.	-	exemplī grātiā (for example)
esp.	-	especially
etc	-	et cetera (and so forth)
EU	-	European Union
IMF	-	International Monetary Fund number
No.	-	Number
S & P	-	Standard & Poor´s
USD	-	United States dollar
p.	-	page

Figure 1: Accumulated market capitalization and 24 hours volatility of all CCs between 01/2017 and 11/2018



Source: https://coinmarketcap.com/charts/.

Figure 2: Percentage of total market capitalization (dominance) of selected CCs



References

Bianchi, D. (2018), 'Cryptocurrencies As an Asset Class? An Empirical Assessment', Warwick Business School Finance Group Research Paper, available at SSRN: https://ssrn.com/abstract=3077685 or http://dx.doi.org/10.2139/ssrn.3077685.

Deutsche Bundesbank (ed.) (2018), 'Funktionen des Geldes', viewed on 7 November 2018, available at Deutsche Bundesbank: www.bundesbank.de/de/service/schule-undbildung/schuelerbuch-geld-und-geldpolitik-digital/funktionen-des-geldes-614130.

Coin Market Cap (ed.) (2018), 'Cryptocurrency Market', viewed on 6 November 2018, available at Coin Market Cap: https:/coinmarketcap.com.

ECB (ed.) (2018), 'What is Bitcoin?', viewed on 8 November 2018, available at ECB: www.ecb.europa.eu/explainers/tell-me/html/what-is-bitcoin.en.html.

Forbes (ed.) (2018), 'Explaining The Dip: What Caused The Recent Cryptocurrency Downturn', viewed on 8 November 2018, available at Forbes: www.forbes.com/sites/outofasia/2018/03/05/explaining-the-dip-what-caused-the-recentcryptocurrency-downturn/#10c76e405ccd.

Jamali, R., Li, S., Pantoja, R. (2016), 'cryptocurrency | digital asset class of the future – bitcoin vs ethereum?', The Economist & Kraken bitcoin exchange, viewed on 6 November 2018, available at The Economist www.economist.com/sites/default/files/economist_case_comp_ivey.pdf.:

Lagarde, C. (2018), 'An Even-handed Approach to Crypto-Assets', IMF Blog, viewed on 11 November 2018, available at IMF: www.blogs.imf.org/2018/04/16/an-evenhanded-approach-to-crypto-assets/.

Liu, Y. & Tsyvinski, A. (2018), 'Risks and Returns of Cryptocurrency', National Bureau of Economic Research Working Paper No. W24877, available at SSRN: https://ssrn.com/abstract=3226806.

Oxford Dictionaries (ed.) (2018), 'Cryptocurrency', viewed on 6 November 2018, available at Oxford Dictionaries: https://en.oxforddictionaries.com/definition/cryptocurrency.

Riparo, P. (2016), 'Il Futuro della Moneta: Criptovalute', Starting Finance, viewed on 10 November 2018, available at Starting Finance: www.startingfinance.com/il-futuro-dellamoneta-criptovalute/.

Roubini, N. (2018), 'The Big Blockchain Lie', Project Syndicate, viewed on 9 November 2018, available at Project Syndicate: www.project-syndicate.org/commentary/blockchain-big-lie-by-nouriel-roubini-2018-10

Sannino, A. (2018), 'I Motivi del Crollo del Bitcoin', Starting Finance, viewed on 10 November 2018, available at Starting Finance: www.startingfinance.com/motivi-del-crollodel-bitcoin/.

TechTerms (ed.) (2018), 'P2P', viewed on 8 November 2018, available at TechTerms: https://techterms.com/definition/p2p.

Wuermeling, J. (2018), 'Auswirkungen virtueller Währungen auf die Finanzmärkte', transcript, Deutsche Bundesbank, viewed on 7 November 2018, available at Deutsche Bundesbank: www.bundesbank.de/de/presse/reden/auswirkungen-virtueller-waehrungen-aufdie-finanzmaerkte-711074#tar-9.

Zannini, M. (2017), 'Bitcoin: Perché ha un Valore?', Starting Finance, viewed on 10 November 2018, available at Starting Finance: www.startingfinance.com/bitcoin-perche-unsuo-

Business Educators' Level of Awareness and Utilization of Assistive Technologies in Business Education Programme in Tertiary Institutions in Delta State, Nigeria

By

Ekwere A. Umoeshiet

Abstract: *This study explored business educators' level of awareness and utilization of assistive technologies in business education programme in tertiary institutions in Delta State. Two research questions were raised and four null hypotheses were tested for the study. Descriptive survey research design was adopted. The entire population of one hundred and twenty-four (124) business educators in the four public-owned Colleges of Education and one university offering business education programme in Delta State was studied without sampling. A validated five point rating scale questionnaire containing 14 items was used for data collection. Cronbach Alpha method was used to establish the reliability of the instrument which yielded coefficients of 0.81 and 0.73, respectively for two clusters of the instrument with an overall coefficient of 0.77. The researcher administered the instrument to the respondents in their offices with the help of five research assistants. Data collected were analyzed using mean and standard deviation to answer the research questions while t-test and Analysis of Variance (ANOVA) were used to test the null hypotheses at 0.05 level of significance. Findings revealed that business educators are aware of and utilized assistive technologies in business education programme in tertiary institutions in Delta State to a low level and very low level. Business educators do not differ significantly in their mean ratings on their level of awareness and utilization of assistive technologies in business education programme in tertiary institutions in Delta State based on years of teaching experience and location. It was concluded that the necessary technological, infrastructural, instructional and motivational frameworks that will facilitates the integration of assistive technologies are missing in tertiary institutions running business education programme in Delta State. Therefore, it was recommended among others that, curriculum developers should design inclusive education concepts in order to facilitate the provision, awareness and utilization of assistive technologies in business education programme across all levels of tertiary institutions.*

Introduction

Nations of the world have their own unique educational system for enlightening their citizenry from circles of ignorance and poverty. The apex of educational systems of most countries is tertiary education. Tertiary education is key frontiers of knowledge generation and transmission tasked with the responsibility of producing graduates that will respond effectively to the demand of the knowledge economy (Obanya, 2012). Tertiary education comes in after the completion of senior secondary education. In Nigeria, tertiary education comprised of higher institutions which are majorly universities, polytechnics and colleges of education. Irrespective of their nomenclature, tertiary institutions are mandated to ensure that their graduates are functional, relevant and responsive to the requirement of the workforce (Okute, 2019).

In Nigeria, there are different educational programmes in universities, polytechnics and colleges of education that are vocational based and one of such is business education. According to Ezewanfor and Onokpaunu (2017), business education is a branch of vocational education concerned with exposing its recipients to the internal and external foundations and functioning of the workplace. Remarkably, business education programme which is not one of the glamorous courses of study in Nigeria, is built on making its recipients become job creators, wealth providers, workplace ICT consultants, entrepreneurs of small and medium enterprises and executive managers of business entities (Nwazor & Onokpaunu, 2016). The nature of business education programme is attracting students with disabilities to the discipline in tertiary institutions. In order to meet the needs of students with disabilities and make business education

programme relevant among other contemporary educational programmes, business educators must integrate the principles of inclusive education in their instructional delivery (Ezewanfor & Onokpaunu, 2019).

The principle of inclusive education has been given a boost due to the advent of assistive technologies. It is believed that the introduction of assistive technologies into educational programme will allow students with disabilities overcome their disabilities and learn subject matter alongside with students without disabilities in the classroom. According to Kumar and Raj (2010), assistive technologies are software programme, or product system used to increase, maintain or improve the functional capabilities of people with disabilities. In the opinion, Chukwuemeka and Samaila (2020), assistive technology (AT) is an umbrella term which is made up of assistive, adaptive, rehabilitative technologies and related services which are specifically made or adapted to serve as technical assistance for students and professionals with disabilities. Effective application of assistive technologies increase students with learning disabilities access to understand curriculum content of educational programmes and also increase the quality of their learning experience (Alkahtani, 2013).

According to Nsofor and Bello (2015), assistive technology is grouped into low technologies, medium technologies and high technologies. Low assistive technologies are the common and inexpensive devices and tools purposively designed to assist in different areas of difficulties. They include simple pencil-grips, magnificent eyeglasses, and large-print cardholder to mention but the few. However, with the current technological advancement, low-tech assistive technologies are becoming more of a crutch than academic support tools (Rowlands, 2015). Medium assistive technologies are the simple and relatively complicated mechanical devices like a wheelchair, audiotape recorder, and ordinary calculator among others. High assistive technologies include advanced electronic and computerised devices that involve the use of hardware and software that convert speech to text and text to speech, spelling checker and reading pen, among others. Collectively, Cennamo, Ross, and Ertmer (2010) averred that assistive technologies include word processors, speech synthesizers, speech recognition, word prediction programme, optical character recognition, tape recorders, variable speech control, frequency modulated amplification systems, text-to-speech synthesizers, closed-circuit television magnification, braille note-takers, screen readers and voice-recognition technology among others.

Thus, the provision of low technologies, medium technologies and high technologies goes a long way in improving the quality assurance parameters of business education programme in tertiary institutions in Delta State. The increasing number of students with disabilities in business education programme in Delta State calls for the adoption of assistive technologies because it falls under the clarion call for the implementation of student-centered instruction strategies capable of reducing the tendencies of students with learning needs and disabilities to drop-out from learning mainstream courses in tertiary institutions. The utilization of assistive technologies will improve the social interaction skills, independent learning attributes and self–esteem of business education students with learning disabilities within and outside tertiary institutions.

Consequently, the introduction of assistive technologies into business education programme depends on business educators' awareness and utilization of these technologies among other variables. *Gutwin and* Greenberg *(2002)* defined awareness as the knowledge created through the interaction of an agent and its environment in order to know what is going on. Teachers' awareness of assistive technologies will help them make request for the purchase

of the appropriate device for their institutions as well as advice parents on the technologies they can get for their children with disabilities (Shikden, 2015). On the other hand, Ezenwafor, Onokpaunu and Nwadiuko (2017) posited that utilization is the effective usage of assets, inputs and raw resources to achieve desirable outcomes. According to the Shikden (2015), the utilization of assistive technologies will encourage teachers to acquire the necessary skills that will facilitate the selection and use of these technologies for different instructional interventions.

In order to ascertain the awareness and utilization of assistive technologies in business education programme in tertiary institutions in Delta State, the years of teaching experience and location of institutions of business educators are taken into consideration. It is believed that the more years, a business educator spend in teaching, the more he or she will be more aware and should know how to utilize assistive technologies. But this assertion needs to be supported by empirical evidence. Given the socio-economic gap observed between urban and rural areas, one may assumed that business educators working in tertiary institutions in urban areas may be exposed and should know how to utilize assistive technologies than their counterparts in rural areas. Again this assertion needs to be supported by empirical evidence. It is against this background that this study was carried out to business educators' level of awareness and utilization of assistive technologies in business education programme in tertiary institutions in Delta State.

Statement of the Problem

Assistive technologies are integrated into teaching and learning procedures to overcome the challenges faced by students with disabilities in educational institutions. Despite the numerous developments of assistive technologies in recent times, the awareness and utilisation of these technologies by business educators in developing nations such as Nigeria is the focus of this study. From literature gathered, there seems to be paucity of empirical studies on business educators' level of awareness and utilization of assistive technologies in business education programme in tertiary institutions in Delta State. In order to fill this huge gap in knowledge, this study was conceived.

Purpose of the Study

The main purpose of the study is to determine business educators' level of awareness and utilization of assistive technologies in business education programme in tertiary institutions in Delta State. Specifically, the study sought to determine:

1. Business educators' level of awareness of assistive technologies in business education programme in tertiary institutions in Delta State
2. Business educators' level of utilization of assistive technologies in business education programme in tertiary institutions in Delta State.

Research Questions

The following research questions guided the study:

1. What is the level of business educators' awareness of assistive technologies in business education programme in tertiary institutions in Delta State?

2. What is the level of business educators' utilization of assistive technologies in business education programme in tertiary institutions in Delta State?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. Business educators do not differ significantly in their mean ratings on their level of awareness of assistive technologies in business education programme in tertiary institutions in Delta State based on their years of teaching experience (0-5, 6 – 10, above 10 years)
2. Urban and rural business educators do not differ significantly in their mean ratings on their level of awareness of assistive technologies in business education programme in tertiary institutions in Delta State
3. Business educators do not differ significantly in their mean ratings on their level of utilization of assistive technologies in business education programme in tertiary institutions in Delta State based on their years of teaching experience (0-5, 6 – 10, above 10 years)
4. Urban and rural business educators do not differ significantly in their mean ratings on their level of utilization of assistive technologies in business education programme in tertiary institutions in Delta State

Method

This study adopted a descriptive survey research design. The entire population of one hundred and twenty-four (124) business educators in the four public-owned Colleges of Education and one university offering business education programme in Delta State was studied without sampling. The instrument for the data collection was a validated questionnaire titled "Awareness and Utilization of Assistive Technologies Questionnaire (AUATQ)"was used for data collection. The questionnaire contained 14 items on a five-point rating scale of Very High Level (VHL), High Level (HL), Moderate Level (ML), Low Level (LL) and Very Low Level (VLL). Face validity of the instrument was determined by three experts; one in the field of Business Education, Educational Technology and the other from Measurement and Evaluation all from Nnamdi Azikiwe University, Awka. A pilot test was conducted to establish the reliability of the instrument by administering it to 20 business educators in Anambra State which were not part of the study and the data collected were analysed using Cronbach alpha to obtain reliability coefficients of 0.81 and 0.73, respectively, for the two clusters of the instrument. The researcher administered the instrument to the respondents in their offices with the help of five research assistants. Mean and standard deviation were used to answer the research questions and determine the homogeneity or otherwise of the respondents' views. Decisions on the research questions were based on the grand mean in relations to the real limits of numbers. Therefore, items with mean ratings of 1.00 - 1.49 are rated Very Low Level, those with 1.50 - 2.49 are Low Level, items with mean ratings of 2.50 - 3.49 are rated Moderate Level, those with 3.50 – 4.49 are High Level and items with 4.50 - 5.00 are rated Very High Level. T-test and Analysis of Variance (ANOVA) were used to test the null hypotheses at 0.05 level of significance. A null hypothesis was accepted where the p-value is equal to or greater

than the alpha level of 0.05 ($p > 0.05$), at a degree of freedom; otherwise, the null hypothesis was rejected. The analysis was carried out using SPSS version 23.0.

Results

Research Question 1:

What is the level of business educators' awareness of assistive technologies in business education programme in tertiary institutions in Delta State?

Data collected in respect to this research question were analyzed and the results are presented in Table 1.

Table 1

Mean and standard deviation of respondents'level of awareness of assistive technologies.

(N= 113)

S/N	Businesseducators' levelof awareness of assistive technologies	$\bar{X}$	SD	Remarks
1	Proof-reading technology	3.76	1.02	HL
2	Speech synthesizers software	2.32	0.85	LL
3	Speech recognition software	3.90	0.64	HL
4	Word prediction programme	2.03	0.59	LL
5	Closed-circuit television magnification	1.85	0.48	LL
6	Screen readers devices	2.27	0.70	LL
7	Braille note-takers devices	3.64	0.98	HL
8	Tape recorders	4.11	0.68	HL
9	Variable Speech Control (VSC)	1.29	0.83	VLL
10	Optical Character Recognition (OCR)	1.18	1.07	VLL
11	Word processors	1.46	0.64	VLL
12	Graphic organizer software	1.05	0.49	VLL
13	Ergonomickey board	1.10	0.91	VLL
14	Signaling devices	4.04	0.80	HL
	Grand Mean	**2.43**		**LL**

Data in Table 1 show that out of the 14 items listed on assistive technologies, business educators were aware of five (items 1, 3, 7, 8 and 14) to a high level with mean ratings ranging from 3.64 to 4.11. Respondents were aware of four (items 2, 4, 5, and 6) to a low level with mean ratings ranging from 1.85 to 2.32 and the remaining five (items 9, 10, 11, 12, and 13) with mean ratings ranging from 1.05 to1.46 to a very low level. The grand mean score of 2.43 means that business educators are aware of assistive technologies in business education programme in tertiary institutions in Delta State to a low level. The standard deviations for all the items are within the same range (i.e.; 0.48 to 1.07) showing that the respondents are not wide apart in their ratings.

Research Question 2:

What is the level of business educators' utilisation of assistive technologies in business education programme in tertiary institutions in Delta State?

Data collected in respect to this research question were analyzed and the results are presented in Table 2.

Table 2

Mean and standard deviation of respondents' level of utilization of assistive technologies.

(N= 113)

S/N	Business educators' level of utilization of assistive technologies.	$\bar{X}$	SD	Remarks
1	Proof-reading technology	1.06	0.63	VLL
2	Speech synthesizers software	1.19	0.41	VLL
3	Speech recognition software	1.02	0.26	VLL
4	Word prediction programs	1.14	0.53	VLL
5	Closed-circuit television magnification	1.05	0.19	VLL
6	Screen readers devices	1.01	0.61	VLL
7	Braille note-takers devices	1.23	0.80	VLL
8	Tape recorders	1.36	0.24	VLL
9	Variable Speech Control (VSC)	1.09	0.59	VLL
10	Optical Character Recognition (OCR)	1.08	0.13	VLL
11	Word processors	1.25	0.60	VLL
12	Graphic organizer software	1.17	0.44	VLL
13	Ergonomickey board	1.20	0.86	VLL
14	Signaling devices	2.44	0.27	LL
	Grand Mean	**1.24**		**VLL**

Data in Table 2 show that out of the 14 items listed on assistive technologies, business educators were aware of one (item 14) to a low level with a mean ratings of 2.44. Respondents were aware of the remaining 13 items to a very low level with mean ratings ranging from 1.01 to 1.36. The grand mean score of 1.24 means that business educators utilized assistive technologies in business education programme in tertiary institutions in Delta State to a very low level. The standard deviations for all the items are within the same range (i.e. 0.13 to 0.86) showing that the respondents are not wide apart in their ratings.

Testing of Hypotheses

Hypothesis 1

Business educators do not differ significantly in their mean ratings on their level of awareness of assistive technologies in business education programme in tertiary institutions in Delta State based on their years of teaching experience (0 - 5, 6 – 10, above 10 years).

Data obtained in respect of hypothesis one are analyzed and presented in Table 3.

Table 3

ANOVA summary of business educators' mean ratings on their level of awareness of assistive technologies based on years of teaching experience

Source of Variance	Sum of Squares	Df	Mean Square	F-value	P-value	Inference
Between Groups	431.10	2	24.07	0.658	0.291	Accepted
Within Groups	610.43	110	38.63			
Total	1041.53	112				

Data on Table 3 show that the F-value of 0.658 with p-value of 0.291 at degree of freedom of 2 and 110 is greater than the criterion value of 0.05 ($p>0.05$). This means that business educators do not differ significantly in their mean ratings on their level of awareness of assistive technologies in business education programme in tertiary institutions in Delta State based on years of teaching experience. Therefore, the null hypothesis is accepted.

Hypothesis 2

Urban and rural business educators do not differ significantly in their mean ratings on their level of awareness of assistive technologies in business education programme in tertiary institutions in Delta State.

Data obtained in respect of hypothesis two are analysed and presented in Table 4.

Table 4

Summary of t-test analysis of urban and rural business educators' mean ratings on their level of awareness of assistive technologies based on experience

Location	N	Mean	SD	df	P-value	Remark
Urban	81	63.14	6.98	122	0.366	Not Significant
Rural	32	51.08	4.13			

The result presented in Table 4 show that the calculated p-value of 0.366 is greater than the criterion value of 0.05 ($p>0.05$) at 122 degree of freedom. This means that there is no significant difference in the mean ratings of urban and rural business educators on their level of awareness of assistive technologies in business education programme in tertiary institutions in Delta State. Therefore, the null hypothesis is accepted.

Hypothesis 3

Business educators do not differ significantly in their mean ratings on their level of utilization of assistive technologies in business education programme in tertiary institutions in Delta State based on their years of teaching experience (0 - 5, 6 – 10, above 10 years)

Data obtained in respect of hypothesis three are analyzed and presented in Table 5.

Table 5

ANOVA summary of business educators' mean ratings on their level of utilization of assistive technologies based on years of teaching experience.

Source of Variance	Sum of Squares	Df	Mean Square	F-value	P-value	Inference
Between Groups	99.23	2	10.66	0.227	0.165	Accepted
Within Groups	286.09	110	22.94			
Total	385.32	112				

Data on Table 5 show that the F-value of 0.227 with p-value of 0.165 at degree of freedom of 2 and 110 is greater than the criterion value of 0.05 (p>0.05). This means that business educators do not differ significantly in their mean ratings on their level of utilization of assistive technologies in business education programme in tertiary institutions in Delta State based on years of teaching experience. Therefore, the null hypothesis is accepted.

Hypothesis 4

Urban and rural business educators do not differ significantly in their mean ratings on their level of utilization of assistive technologies in business education programme in tertiary institutions in Delta State.

Data obtained in respect of hypothesis four are analysed and presented in Table 6.

Table 6

Summary of t-test analysis of urban and rural business educators' mean ratings on their level of awareness of assistive technologies based on experience

Location	N	Mean	SD	df	P-value	Remark
Urban	81	31.02	3.17	122	0.985	Not Significant
Rural	32	19.31	1.89			

The result presented in Table 6 shows that the calculated p-value of 0.985 is greater than the criterion value of 0.05 (p>0.05) at 122 degree of freedom. This means that there is no significant difference in the mean ratings of urban and rural business educators on their level of utilization of assistive technologies in business education programme in tertiary institutions in Delta State. Therefore, the null hypothesis is accepted.

Discussion of Findings

Result of the study disclosed that business educators are aware of assistive technologies in business education programme in tertiary institutions in Delta State to a low level. This finding is in agreement with Yusuf and Fakomogbon (2008) which discovered that educators are aware of assistive technologies to a low extent. The finding that business educators are aware of assistive technologies in business education programme in tertiary institutions in Delta State to a low level is in tandem with Chiang and Jacobs (2010) on the premise that educators are not familiar with assistive technologies. This finding could be attributed to business

educators' lack of exposure to assistive technologies in teacher training institutes and tertiary institutions in Delta State. However, the findings of this study disagree with that of Shikden (2015) who discovered that educators are aware of how assistive technologies could be used in the classroom for instructional delivery. In addition, the study showed that business educators do not differ significantly in their mean ratings on their level of awareness of assistive technologies in business education programme in tertiary institutions in Delta State based on years of teaching experience and location. This implies that business educators' irrespective of their years of teaching experience and location have the same opinion on their low level of awareness of assistive technologies.This supports the views of Eteokleous (2008) who asserted that teachers' lack of awareness of assistive technologies is as a result of their lack of positive attitude towards assistive technologies.

Furthermore, outcome of the study indicates that business educators utilized assistive technologies in business education programme in tertiary institutions in Delta State to a very low level. This finding is in consonance with that of Maraizu (2014) who reported that teachers do not regularly use assistive technologies to teach because of the insufficiency in the supply of assistive technologies in educational institutions. Perhaps, the failure of business education programme to cater for students with disabilities could be responsible for business educators' low level of utilization of assistive technologies. This finding agreed with the studies of Onivehu, Ohawuiro, and Oyeniran (2017) and Ghazi (2018) which reported that educators are not using assistive technologies to teach because of their high-tech nature and these technologies were not adequately available and accessible. More so, the study indicated that business educators do not differ significantly in their mean ratings on their level of utilization of assistive technologies in business education programme in tertiary institutions in Delta State based on years of teaching experience and location. The non-significant difference in the mean ratings of business educators on their level of utilization of assistive technologies in business education programme on the basis of their gender and years of experience agrees with the finding of Ajuwon and Chitiyo (2016) on the premise that lack of training in the use of assistive technologies in the classroom and irregular electricity supply are the biggest challenges regarding the use of assistive technologies in Nigeria.

Conclusion

Undoubtedly, the adoption of assistive technologies by business educators will give business education programme an inclusive description in the society. Effective adoption of these technologies provide a robust support system for students with disabilities and learning needs to participate effectively in teaching and learning activities in the classroom. Based on the findings of the study, the researcher concluded that the necessary technological, infrastructural, instructional and motivational frameworks that will facilitates the integration of assistive technologies are missing in tertiary institutions running business education programme in Delta State.

Based on the findings of this study, the following recommendations are made. Curriculum developers should design inclusive education concepts in order to facilitate the provision, awareness and utilisation of assistive technologies in business education programme across all levels of tertiary institutions. Also, ggovernment and information communication and technologies companies should provide tertiary institutions across all levels with the necessary assistive technologies to encourage the use of these technologies by business educators in their

instructional delivery in order to meet the needs of students with disabilities in the classroom. Heads of Business Education Departments in tertiary institutions should equally subject business educators' to professional hands-on seminar and workshop programme that will not only expose them to the various types of assistive technologies but also enhance their competency on how to utilize them in their instructional delivery in the classroom.

References

Ajuwon, P. M., & Chitiyo, G. (2016). Survey of the use of assistive technology in schools in Enugu. *Journal of the International Association of Special Education, 1*, 4-13

Alkahtani, K. D. F. (2013). Teachers' knowledge and use of assistive technology for students with special educational needs. *Journal of Studies in Education, 3*(2), 65 – 85

Cennamo, K. S., Ross, J. D., & Ertmer, P. A. (2010). *Technology integration for meaningful classroom use: Astandards-based approach*. Belmont, CA: Wadsworth Cengage Learning

Chiang, H., & Jacobs, K. (2010). Perceptions of computer based instruction system in special education: High school teachers and student views. *World Journal of Education*, *37*(4), 349–359

Chukwuemeka, E. J., &Samaila, D. (2020). Teachers' perception and factors limiting the use of high-tech assistive technology in special education schools in North-West, Nigeria.*Contemporary Educational Technology, 11*(1), 99-109

Eteokleous, N. (2008). Evaluating computer technology integration in acentralized school system. *Computers & Education, 51*(2), 669–686

Ezenwafor, J. I., & Onokpaunu, M. O. (2017). Perception of business educators on the relevance of integrating globalized workplace skills in the business education curriculum in tertiary institutions in Nigeria. Education & Science *Journal of Policy Review and Curriculum Development, 7*(1),1–10.

Ezenwafor, J. I., Onokpaunu, M.O., & Nwadiuko, O. A. (2017). Utilization of social media platforms by entrepreneurs in their entrepreneurial activities in Delta State. International *Journal of Innovative Social & Science Education Research, 5(*1), 10 - 17.

Ezenwafor, J. I., & Onokpaunu, M. O. (2019). Business educators' knowledge and competence level in pedagogical strategies for implementing inclusive business education programs in Nigeria. *Journal Plus Education, XXIV*, 100–106.

Ghazi, A. M. (2018). Teachers' perspectives on surrounding ICT use amongst SEN students in the Mainstream Educational setting. *World Journal of Education*, *8*(1), 6-16

Gutwin, C., & Greenberg, S. (2002). A descriptive framework of workspace awareness for real-time groupware. Computer supported cooperative work. *The Journal of Collaborative Computing*, *1*(3) 104 – 200

Kumar, S., & Raja, B. (2010). Web-based technology for children with learning difficulties. *Journal of Educational Technology*, *7*(1), 8-13.

Maraizu, U. S. (2014). *An assessment of assistive technology devices and services used at secondary school level in an urban Enugu, Nigeria.* Unpublished PhD Dissertation, Capella University

Nsofor, C. C., & Bello, A. (2015). *Emerging trends in educational technology*. Ibadan: Emmi Press.

Nwazor, J. C., & Onokpaunu, M.O. (2016). Strategies considered effective for transforming business education programmes to the needs of 21st century workplace in Delta State, Nigeria. *African Journal of Education and Practice, 1*(5), 74 - 82.

Obanya, P. A. I. (2012). 21st century higher education in Nigeria and skills acquisition. The issue of curriculum. Convocation lecture delivered at the 26th convocation ceremony of the University of Calabar, Nigeria. 1st March

Okute, A. L. (2019). Challenges of teacher preparation in a knowledge economy in the E-era. *Nigerian Journal of Business Education, 6*(1), 356 – 369

Onivehu, A. O., Ohawuiro, O. E., & Oyeniran, B. J. (2017). Teachers' attitude and competence in the use of assistive technologies in special needs schools. *Acts Didactica Napocensia, 10*(4), 21-32

Rowlands, T. (2015). *The utilization of assistive technology to enhance education support for all learners in a mainstream school.* Unpublished PhD Dissertation, University of South Africa.

Shikden, A. G. (2015). *A survey of teachers' awareness and use of assistive technology in teaching children with special needs in North Central Nigeria.* Unpublished PhD Dissertation, Department of Special Education and Rehabilitation Sciences, Faculty of Education, University of Jos, Plateau State, Nigeria.

Yusuf, M. O., & Fakomogbon, M. A. (2008). Availability of assistive ICTs, teachers' awareness and attitude towards the use of ICTs in special schools, in Kwara State, Nigeria. In J. Luca, & E. R. Weippl (Eds), *Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications.* Chesapeake,VA: AACE

Relationship between Leadership Styles and Productivity of Vocational and Technical Lecturers in Tertiary Institutions in Anambra State, Nigeria

K.R.E. Okoye
&
Emeghebo, Anneth Ndidiamaka

Abstract: *The study was designed to determine the relationship between leadership styles and productivity of vocational and technical lecturers in tertiary institutions in Anambra State, Nigeria. Four research questions were raised and four hypotheses were tested for the study at 0.05 level of significance. The study adopted correlational research design. The entire population of 132 vocational and technical educators in public tertiary institutions in Anambra State, Nigeria was studied without sampling. Leadership Style Questionnaire (LSQ) and Lecturers' Productivity Questionnaire (LPQ) were used for data collection. Cronbach Alpha method was used to establish the reliability of the instrument which yielded coefficient of 0.89 for LSQ and 0.76 for LPQ. The researchers administered the instrument with the help of four research assistants using direct method to the respondents. Data collected were analyzed using Pearson product-moment correction statistics with SPSS version 23.0. Findings of the study revealed that there is a negative and significant relationship between autocratic leadership style and VTE lecturers' productivity. Findings also revealed that there is a positive and significant relationship between democratic, transactional and transformational leadership styles and VTE lecturers' productivity. The null hypotheses raised for the study were rejected. The study concluded that Deans and Heads of Department must switch from one leadership style to another in order to monitor the academic leadership function of lecturers in line with the academic performance of students in vocational and technical education. The study recommended among others that vocational and technical education lecturers should not abuse the conducive working environment created by Deans and Heads of VTE Department as that may lead to organizational breakdown and swift application of rigid style of leadership*

Keywords: Leadership, styles, Productivity, Vocational,Technical, Education

Introduction

Every organisation needs a leader. Leaders are managers of organisations who can predict the future probabilities and design choice strategies to satisfy uncertainties (Riaz & Haider, 2010). They can lead organizations to success by paying more attention to environmental changes, which in turn helps them set proper organizational goals and objectives (Zaidatol, Amir & Habibah, 2011). The fact that leaders lead people voluntarily without force separates them from rulers. Rulers demand followership by decree unlike leaders, who are agent of innovation and attract respect from subordinates as a result of their leadership styles. More so, the leader of an organization cannot work alone and the ability to direct, carry along and mobilize his subordinates towards attaining organizational success demands effective use of appropriate leadership styles.

Leadership styles are deliberate actions taken by leaders to see that subordinates are motivated to execute their personal visions in an organisation. According to Kiboss and Jemiryott (2014), leadership styles are the patterns of behaviour used by leaders to influence group members regarding the mission, strategy, and operations of an organisation. Memon (2014) defined leadership style as a leader's style of providing direction, motivating people and implementing plans. From literature gathered, there are numerous types of leadership style but this study will focus on autocratic leadership style, democratic leadership style, transactional leadership style and transformational leadership style.

Autocratic leadership style appears generally self-centred and allows minimum participation of subordinates in decision-making (Omeke & Onah, 2012).In the opinion of Cherry in Segun-Adeniran (2015) autocratic leadership style is based on an individual control over every decision and contributions of group members. The democratic leadership style is a direct opposite of autocratic leadership style. Mgbodile in Omeke and Onah (2012) opined that democratic leadership style is people oriented and counts on the participatory contribution of subordinates. More so, Segun-Adeniran averred that transactional leadership style usually gives subordinates' rewards or punishments for tasks carried out.

The word ' transaction ' means rewards will be given for actions taken (positive or negative). Transactional leadership style also known as managerial leadership focuses on the role of oversight and group performance in which the leader promotes his followers ' compliance through rewards and punishments unlike transformation leadership style (Madu, 2014). Transformational leadership style is adopted when the leader works with his subordinates to identify the necessary changes, with a mind set to guide the changes through moral guidance, and to execute the changes in accordance with his group members (Olakitan, Ali &Ishak 2017). Transformational leadership style is characterised by vision, creativity, and positive changes in an organization. It promotes high performance, increases motivation and morale among followers. A leader with transformational leadership style seeks to bring out the potentials and talents of his followers in order to improve their productivity in the organization. Productivity is one variable that determine the effectiveness of a worker in an organization.

Productivity is the result of an individual's endeavors regarding the resources used (Olakitan, Ali &Ishak, 2017). Productivity measures an individual's effectiveness and competence in their profession. Productivity is critical for good organizational performance (Raza, Anjum& Zia, 2014), effective task performance (Yukl, 2008), resource efficiency (Rahman & Rahman, 2009), product quality, workmanship, standards compliance, customer satisfaction (Ayinde, 2014). In educational terms, Akiri and Ugborugbo (2008) opined that productivity anchors around educators' ability to impacts more on students' learning in preparing them to live a successful and productive life. This vision is echoed by the Federal Republic of Nigeria (FRN) (2013) in the goals of tertiary education which stated that tertiary institutions must be able to produce graduates who are well equipped with the requisite skills to function productively in the world of work.

Generally, tertiary education is experience in Universities, colleges of education and polytechnics. Tertiary education is important because it enhances not only the intellectual potentials of students but also instils worthwhile character in them for responsible living and nation building (Ementa & Onokpaunu, 2019). There are many tertiary educational programmes offered across different faculties in a University among which is vocational and technical education. Extensively, Okoye and Okwelle (2013), conceptualized Vocational and Technical Education (VTE) as a form of education that emphasizes pragmatic attitude as a priority and advocates the development of the head (knowledge), training of hand (dexterity) and enrichment of the heart (consciousness and painstaking). The authors posited that VTE emphasizes the 3Hs (head, hand and heart) as a total deviation from the form of education, that emphasizes the 3Rs (reading, writing and arithmetic) that serve as a professional qualification for elite status with graduates roaming the streets looking for white-collar jobs.

Vocational and technical education covers agricultural education, business education, home economics, electrical and electronics technology, metalwork technology, mechanical/automobile technology, building technology and woodwork technology. Thus, VTE

educators are primarily teachers of theoretical or knowledge-based components of vocational and technical education programs responsible for imparting practical and theoretical skill instruction needed in the world of work (Parsons, Hughes, Allinson & Walsh, 2009). Vocational and technical lecturers are under the leadership of their deans and heads of department in tertiary institutions. The mark of productivity among VTE lecturers is rooted in their ability to produce enterprising graduates who are job creators in the society upon graduation. However, Goodall (2009) averred that efficient leadership style leads to the realization of the goals of university education among educators and students. It is against this backdrop, the researchers sought to determine the relationship between leadership styles and productivity of vocational and technical lecturers in tertiary institutions in Anambra State, Nigeria.

Statement of the Problem

The incessant changes in the leadership positions in faculties and departments of tertiary institutions are crucial to all academic engagements and educators' productivity. In tertiary institutions, lecturers' productivity is considered in terms of teaching, preparing for class, research and scholarly activities, student research supervision, supervising internship, working with students on activities other than coursework, interacting with students outside classroom, innovation and conducting community service activities (Sullivan, Mackie, Massy & Sinha, 2012). What is certain is that, leadership styles create different organizational culture, which manifests in the productivity of employers. In Anambra State of Nigeria, there seems to be paucity of empirical investigations on the relationship between leadership styles and productivity of vocational and technical lecturers'. The gap in knowledge necessitated the researchers to determine the relationship between autocratic leadership style, democratic leadership style, transactional leadership style and transformational leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria. With these objectives, the paper is guided by the following research questions and corresponding hypothetic statements.

Research Questions

1. What is the relationship between autocratic leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria?
2. What is the relationship between democratic leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria?
3. What is the relationship between transactional leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria?
4. What is the relationship between transformational leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria?

Hypotheses

The following hypotheses were tested at 0.05 level of significance;

1. There is no significant relationship between autocratic leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria.

2. There is no significant relationship between democratic leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria.
3. There is no significant relationship between transactional leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria.
4. There is no significant relationship between transformational leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria.

Methodology

The correlational research design was adopted. This design was chosen because the researcher could not directly control the characteristics that served as independent and dependent variable in the study, since their manifestations had already occurred and hence the study was carried out in retrospect (Cohen, Manion& Morrison, 2007). The population for the study consisted of all 132 vocational and technical educators in public tertiary institutions in Anambra State, Nigeria. The entire population was studied without sampling.

Two instruments were used in the study namely; Leadership Style Questionnaire (LSQ) covered the items on leadership style while Lecturers Productivity Questionnaire (LPQ) by Abba, Anumaka and Gaite (2016) covered five aspects; teaching, supervision, research and publications, innovation and community services was adopted for the study. LSQ is divided into three sections; A and B. Section A of the instrument sought information on the personal data of the respondents while Section B contained 32 items on the impact of leadership styles on lecturers' productivity. The responses were placed on a five-point rating scale of Strongly Agree (SA), Agree (A), Undecided (U) Disagree (D) and D Strongly Disagree (SD) and were rated 5, 4, 3, 2 and 1 respectively. The validation of the instruments was done by subjecting it to one expert each from the Department of Educational Foundation and Vocational and Technical Education of Nnamdi Azikiwe University, Awka. To establish the instruments reliability, it was administered on 20 VTE lecturers in *Enugu State University* of Science and Technology, Enugu State who are not part of the actual study. Using Cronbach's alpha, a reliability coefficient alpha of 0.89 for LSQ and 0.76 for LPQ. The researchers administered the instrument with the help of four research assistants using direct method to the respondents. Pearson product-moment correction statistics were used for data analysis at 0.05 level of significance. A hypothesis was accepted where the p-value is equal to or greater than the alpha level of 0.05 ($p > 0.05$), at a degree of freedom; on the other hand, the null hypothesis was rejected when a p-value was less than the alpha level of 0.05($p < 0.05$). The analysis was carried out using SPSS version 23.0.

Results

Research Question 1: What is the relationship between autocratic leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria?

Table 1: Correlational between autocratic leadership style and VTE lecturers' productivity

Variables	Pearson Correlation coefficient (*r*)

Autocratic leadership style	
	-0.27
Lecturers' productivity	

Table 1 shows a Pearson coefficient (r) of -0.27, which indicates a negative relationship between autocratic leadership style and vocational and technical education lecturers' productivity. Data in Table 1 further shows a negative and low relationship between autocratic leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria.

Research Question 2: What is the relationship between democratic leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria?

Table 2: Correlations between democratic leadership style and VTE lecturers' productivity

Variables	Pearson Correlation coefficient (*r*)
Democratic leadership style	
	0.82
Lecturers' productivity	

Table 2 shows a Pearson coefficient (r) of 0.82 that indicates a positive relationship between democratic leadership style and vocational and technical education lecturers' productivity. Data in Table 2 shows a positive and high relationship between democratic leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria.

Research Question 3: What is the relationship between transactional leadership style and vocational and technical education lecturers' productivity in tertiary institutions in Anambra State, Nigeria?

Table 3: Correlations between transactional leadership style and VTE lecturers' productivity

Variables	Pearson Correlation coefficient (*r*)
Transactional leadership style	
	0.63
Lecturers' productivity	

Table 3 shows a Pearson coefficient (r) of 0.63 that indicates a positive relationship between transactional leadership style and vocational and technical education lecturers' productivity. Data in Table 3 further shows a positive and moderate relationship between transactional leadership style and vocational and technical education lecturers 'productivity in tertiary institutions in Anambra State, Nigeria.

Research Question 4: What is the relationship between transformational leadership style and vocational and technical education lecturers ‘productivity in tertiary institutions in Anambra State, Nigeria?

Table 4: Correlations between transformational leadership style and VTE lecturers' productivity

Variables	Pearson Correlation coefficient (*r*)
Transformational leadership style	
	0.76
Lecturers' productivity	

Table 4 shows a Pearson coefficient (r) of 0.76 that indicates a positive relationship between transformational leadership style and vocational and technical education lecturers ‘productivity. Data in Table 4 further shows there is positive and high relationship between transformational leadership style and vocational and technical education lecturers ‘productivity in tertiary institutions in Anambra State, Nigeria

Hypotheses testing

Hypothesis 1: There is no significant relationship between autocratic leadership style and vocational and technical education lecturers ‘productivity in tertiary institutions in Anambra State, Nigeria.

Table 5: summary of correlation co-efficient of the relationship between autocratic leadership style and VTE lecturers' productivity

Variables	*R*	p-value	Remark
Autocratic leadership style			
	-0.27	0.00	S
Lecturers productivity			

S – Significant correlation at 0.05 level of significance

Data in Table 5 reveal that there is a significant relationship between autocratic leadership style and VTE lecturers productivity ($r= -0.27$, $p<0.05$) and the null hypothesis is rejected.

Hypothesis 2: There is no significant relationship between democratic leadership style and vocational and technical education lecturers ‘productivity in tertiary institutions in Anambra State, Nigeria

Table 6: summary of correlation co-efficient of the relationship between democratic leadership style and VTE lecturers' productivity

Variables	*R*	p-value	Remark

Democratic leadership style Lecturers' productivity	0.82	0.00	S

S – Significant correlation at 0.05 level of significance

Data in Table 6 reveals that there is a significant relationship between democratic leadership style and VTE lecturers' productivity (r= 0.82, p<0.05) and the null hypothesis is rejected.

Hypothesis 3: There is no significant relationship between transactional leadership style and vocational and technical education lecturers 'productivity in tertiary institutions in Anambra State, Nigeria

Table 7: summary of correlation co-efficient of the relationship between transactional leadership style and VTE lecturers' productivity

Variables	*R*	p-value	Remark
Transactional leadership style Lecturers' productivity	0.63	0.00	S

S – Significant correlation at 0.05 level of significance

Data in Table 7 reveals that there is a significant relationship between transactional leadership style and VTE lecturers productivity (r= -0.63, p<0.05) and the null hypothesis is rejected.

Hypothesis 4: There is no significant relationship between transformational leadership style and vocational and technical education lecturers 'productivity in tertiary institutions in Anambra State, Nigeria

Table 8: summary of correlation co-efficient of the relationship between transformational leadership style and VTE lecturers' productivity

Variables	*R*	p-value	Remark
Transformational leadership style Lecturers' productivity	0.76	0.00	S

S – Significant correlation at 0.05 level of significance

Data in Table 8 reveals that there is a significant relationship between transformational leadership style and VTE lecturers' productivity ($r= 0.76$, $p<0.05$) and the null hypothesis is rejected.

Discussion of Findings

The study reveals a negative relationship between autocratic leadership style and VTE lecturers' productivity. This implies when Deans and HODs of VTE department uses autocratic leadership style, VTE lecturers 'exhibit unproductive attitude towards their official duties. Therefore, the null hypothesis that, there is no statistical significant relationship between autocratic leadership style and lecturers productivity was rejected. This finding is similar to Jayasingam and Cheng (2009) where they found autocratic power produces negative influence on employee job performance. The studies of Akor (2014) and Puni, Ofei and Okoe (2014) support the finding that there is a negative and significant relationship between autocratic leadership style and VTE lecturers' productivity. This means that as the autocratic leadership style of Deans and HODs increases, there is an equal decrease in the level of job productivity among VTE lecturers. However, the study findings are inconsistent with the earlier study of Gimuguni, Nandutu and Magolo (2014) which reported positive relationship between autocratic leadership styles and employees 'performance.

In addition, the study also discovered a positive relationship between democratic leadership style and VTE lecturers' productivity. This implies when Deans and HODs of VTE department uses democratic leadership style, VTE lecturers 'exhibit professional efficiency towards their job. Therefore, the null hypothesis that, there is no statistical significant relationship between democratic leadership style and lecturers productivity was rejected. This finding is similar to Ojokuku, Odetayo and Sajuyigbe (2012) which reported that democratic leadership style permits workers to have sense of belonging, higher responsibility with little supervision, which enhances organizational efficiency. This had been supported by the studies of Iqbal, Anwar and Haider (2015) and Bhatti, Maitlo, Shaikh, Hasmi and Shaikh (2012). This means that as the democratic leadership style of Deans and HODs increases, there is a corresponding increase in the level of job productivity and organizational growth by lecturers in tertiary institutions.

Furthermore, outcome of the study disclosed that transactional leadership style strongly and positively correlated with lecturers' productivity. This implies when Deans and HODs of VTE department uses transactional leadership style, it brings cordiality and closeness between the leader and subordinates, which leads to increased productivity. This means that as the transactional leadership style of Deans and HODs increases, VTE lecturers have a clearer understanding of their given task especially when promotion and other incentives are at stake.Therefore the null hypothesis that, there is no statistical significant relationship between transactional leadership style and lecturers' productivity was rejected. These results are similar to the findings of Valdiserri and Wilson (2010) whose study found that transactional leaders are able to produce a positive atmosphere, and inspire and motivate their employees to perform at a higher level. The finding that there is a significant relationship between transactional leadership style and VTE lecturers' productivity is in agreement with the studies of Giltinane (2013) and Akhigbe, Ajienka, and Oloda (2014) which reported that transactional leadership style is task-oriented, give reward based on performances and has positive relationship with subordinates' job performance and satisfaction

Finally, the study discovered that transformational leadership style strongly and positively correlated with lecturers' productivity. This implies when Deans and HODs of VTE

department uses transformational leadership style, VTE lecturers' exhibit professional efficiency towards their job. This means that as the transformational leadership style of Deans and HODs increases, there is a corresponding increase in the level of job productivity and organizational growth by lecturers in tertiary institutions. Therefore, the null hypothesis that there is no statistical significant relationship between transformational leadership style and lecturers productivity was rejected. Significant positive relationship between transformational leadership styles and lecturers productivity is also reported in the study of Pradeep and Prabhu (2011) in India, and in the studies of Ejere and Abasilim (2013) and Kehinde and Banjo (2014) in Nigeria. The finding that transformational leadership style strongly and positively correlated with lecturers' productivity tallies with the assertion of Anyango (2015) who stated that transformational leaders focuses on employees from an individualized perspective increases their productivity on the job.

Conclusion and Recommendations

Leadership style is the framework for accomplishing successful leadership roles. Although, leadership is dynamic and its role in the success and failure of an organization cannot be over-emphasized. Based on the findings of the study, it is crystal clear that different leadership styles have positive and negative significant impact on productivity. Upon this foundation, the researchers concluded that, Deans and Heads of Department must switch from one leadership style to another in order to monitor the academic leadership function of lecturers in line with the academic performance of students in vocational and technical education. Hence, the researchers suggested the following recommendations:

1. Deans and Heads of VTE Department should use democratic and transformational leadership styles so as to promote the overall productivity of lecturers and in turn improves the academic achievement of students in vocational and technical studies.
2. Deans and Heads of VTE Department should resist the urge to adopt autocratic and transactional leadership styles because they are not suitable for improving the productivity, commitment and joy of teaching among lecturers in tertiary institutions.
3. Vocational and technical education lecturers should not abuse the conducive working environment created by Deans and Heads of VTE Department that may lead to organizational breakdown and swift application of rigid style of leadership.

References

Abba, H.D., Anumaka, I.B., &Gaite, S.S. (2016). Leadership Practices and Productivity of Academic Staff in Polytechnics in Nigeria. *American Journal of Academic Research, 1*, 56 - 68.

Akhigbe, O.J., Ajienka, M.F., &Oloda, O.F. (2014). Transactional leadership style and employee satisfaction in Nigerian banking sector. European journal of business and management, vol. 6, 2014.

Akiri, A.A. &Ugborugbo, N. M. (2008). An examination of gender's influence on teachers' productivity in secondary schools. *J. Soc. Sci*., *17*(3), 185-191

Akor, P.U. (2014). Influence of autocratic leadership style on the job performance of academic librarians in Benue State. *Journal of Educational and Social Research, 4*(7), 148-152

Anyango, C.A. (2015). *Effects of leadership styles on employee performance at BOA Kenya Limited*. Unpublished masters' dissertation, Department of Human Resources Management, Open University of Tanzania

Ayinde, H. (2014). Employee welfare programmes: Panacea towards improving labour productivity in the service sector in Nigeria. *Mediterranean Journal of Social Sciences, 5*(10), 78-81

Bhatti, N., Maitlo, G.M., Shaikh, N., Hasmi, M.A., &, Shaikh, F.M., (2012). The impact of autocratic and democratic leadership style. *International Business Research, 5*(2), 192-201

Cohen, L., Manion, L., & Morrison, K. (2007) *Research Methods in Education.* London: Routledge

Ejere, E.I., &Abasilim, U.D. (2013). Impact of transactional and transformational leadership styles on organisational performance: Empirical evidence from Nigeria. *The Journal of Commerce, 5*(1), 30-41

Ementa, N.C., &Onokpaunu, M.O. (2019). Appraisal of business education students' performance trends in computer related courses: Implications for lecturers' instructional design. *Nigerian Journal of Business Education,6*(1), 397 – 410

Federal Republic of Nigeria (2013).National Policy on Education.Lagos: NERDC Press.

Goodall, A.H. (2009). Highly cited leaders and the performance of research universities. *Research Policy, 38*(7), 1079-1092

Gimuguni, L., Nandutu, J., &Magolo, A. (2014). *Effect of leadership styles on performance of localgovernments in Uganda. A case of Mbale District.* Unpublished masters' thesis, Department of Business Management, Makerere University

Iqbal, N., Anwar, S. &Haider, N., (2015). Effect of leadership style on employee performance.*Arabian Journal of Business and Management Review, 5*(5), 1- 6

Giltinane, C.L. (2013). Leadership styles and theories. *Nursing Standard*, 21, 35-39.

Jayasingam, S., & Cheng, M.Y. (2009). Leadership style and perception of effectiveness: Enlightening Malaysian managers*. Asian social science, 5*(2), 54-65

Kiboss, J.K., & Jemiryott, H.K.S. (2014). Relationship between principals' leadership styles and secondary school teachers' job satisfaction in Nandi South District, Kenya. *Journal of Education and Human Development, 3(*2), 493-509

Kehinde, O.A.I., & Banjo, H.A. (2014). Test of the impact of leadership styles on employee performance: A study of department of petroleum resources. *International Journal of Management of Sciences*, *2*(3), 149–160

Madu, N.P. (2014). *Impact of leadership style on the performance of selected transport companies in Benue State, Nigeria*. Unpublished masters' thesis, Department of Business Administration, University of Nigeria, Enugu

Memon, K.R. (2014). Effects of leadership styles on employee performance: Integrating the mediating role of culture, Gender andmoderating role of communication. *International Journal of Management Sciences and Business Research, 3*(7), 63 - 80

Michael. A. (2010). *Leadership style and organizational impact*. Retrieved from http://www.ala-apa.org

Ojokuku, R., Odetayo, T. &Sajuyigbe, A., (2012). Impact of leadership style on organizational performance: A case study of Nigerian banks. *American Journal of Business and Management, 1*(4), 202-207

Olakitan, O.J., Ali, H., &Ishak, S.B. (2017). Impact of principal leadership style and teacher quality on teacher's productivity: A Conceptual paper. *Asian Journal of Multidisciplinary Studies, 5*(10), 83 - 89

Okoye, K.R.E, &Okwelle, P.C. (2013). Technical and vocational and training (TVET) in Nigeria and energy development, marketing and national transformation. *J. Educ. Pract., 4(14),* 134-138

Omeke, F.C., & Onah K. A. (2012). The influence of principals' leadership styles on secondary school teachers' job satisfaction. *Journal of Educational and Social Research, 2*(9), 45 – 52

Parsons, D., Hughes, J., Allinson, C., & Walsh, K. (2009). The training and development of VET teachers and trainers in Europe. In Cedefop (Ed.), *Modernising vocational education and training, fourth report on vocational education and training research in Europe: Synthesis report* (pp. 71–141). Luxembourg: Publications Office of the European Union

Pradeep, D. D., &Prabhu, N. R. V. (2011). The relationship between effective leadership and employee performance. *Journal of Advancements in Information Technology, 20*, 198-207

Puni, A., Ofei. S.B., &Okoe, A. (2014). The effect of leadership styles on firm performance in Ghana. *International Journal of Marketing Studies, 6*(1), 177 - 185

Rahman, S., & Rahman, M. (2009). Impact of land fragmentation and resource ownership on productivity and efficiency: The case of rice producers in Bangladesh. *Land Use Policy, 26*(1), 95- 103.

Raza, H., Anjum, M., & Zia, S. M. (2014). The impacts of employee's job performance behaviour and organisational culture on organisational productivity in pharmaceutical industries in Karachi. *Interdisciplinary Journal of Contemporary Research in Business*, *5*(12), 285-400

Riaz, A., &Haider, M. H. (2010). Role of transformational and transactional leadership on job satisfaction and career satisfaction. *Business and Economic Horizons, 1*(1), 29-38

Segun-Adeniran, C.D. (2015), Leadership styles and job productivity of university library staff: Interrogating the Nexus. *Library Philosophy and Practice* (e-journal). 1269.

Sullivan, T. A., Mackie, C., Massy, W. F., & Sinha, E. (2012). *Improving measurement of productivity in higher education*. New York, USA: National Academy of Sciences.

Valdiserri, G.A., & Wilson, J.L. (2010). The study of leadership in small business organizations: Impact on profitability and organizational success. *The Entrepreneurial Executive,* 15 – 47

Zaidatol, A.L.P., Amir, S., &Habibah, E. (2011). Analysis of heads of department leadership styles: Implication for improving research university management practices. *Procedia - Social and Behavioral Sciences, 29,* 1081 – 1090

Rehabilitation of Inmates in Nigeria: A Study of Nigerian Correctional Service, Medium Security Custodial Centre, Sokoto, Nigeria

Geno Ardo

Samaila Shehu Sifawa

Tumba Ardo

and
Muhammad Buhari Nuhu

Abstract

Preparing inmates for re-integration into the community is one of the primary goals of prisons and jails. However, the problems of care and rehabilitation of inmates is a major social problem in almost all the security custodial services in Nigeria. Sokoto Medium Security Custodial Centre in particular needs much attention. Medium Security Custodial Centre in Sokoto today holds more than its capacity and insufficiency of funds has made the upkeep of the inmates a difficult task. Despite various reforms embarked by government geared towards care and rehabilitation of prisoners in Nigeria, the conditions of these inmates left much to be desired as the inmates are faced with moral condemnation and rejection from the society. The study attempts examination of the condition of the inmates as well as the rehabilitation programmes available at the custodial centre. The research was purely a quantitative study. Data were collected through the use of questionnaire and interview schedule. A total of 264 questionnaires were administered, 220 were retrieved and analysed using descriptive statistics, specifically using percentages, distribution tables, charts, means, Likert-type scale and other measures of central tendencies by the help of Statistical Package for Social Science (SPSS version 22). The research found that the living condition of inmates in Sokoto Medium Security Custodial Centre is very poor, and that there is a relationship between the general condition of the inmates and the effectiveness of the rehabilitation of inmates in the Centre, as well as a relationship between the methods of rehabilitation and its effectiveness on inmates.

Keywords: Rehabilitation, Correctional System, Inmates, Crime

Introduction

Imprisonment as a form of punishment did not exist in many places in Africa and was rarely used in others until pre-colonial times. Criminals were usually detained by being chained in the open, or given other public forms of punishment. Imprisonment was not regarded as a suitable form of punishment for ordinary offenders (Hughes, 2008). Physical restraint was rarely used, and detention does not appear to have been regarded as a punishment in itself (Read, 1969). In pre-colonial Africa, in the rare situations involving detention, offenders would be held for the purposes of attending their trial or awaiting the imposition of some other form of punishment. For example, the Nigeria communities like other societies have assumed the responsibility of putting away deviant citizens and preventing them from doing further harm to the society. This development gave birth to recruitment of able-bodied men by the traditional rulers. In the Hausa

land they were called *"Dogarai*" and in the Yoruba land they were called *"Ogbonis*." At that period there were complex fusion of police and the guards which existed in the early part of the colonial era. During colonial administration, colonial powers began using incarceration as a means of subjugating indigenous populations for economic, political, and social purposes. Hughes, (2008) noted that politically and socially, colonialists used incarceration as a method of controlling political dissidents and maintaining colonial control over occupied territories and their indigenous populations. Kamugisha. (n.d) in Hughes, (2008) observed that colonialists incarcerated natives for minor offences like tax defaulting and civil felonies that would not have warranted hard punishment in the pre-colonial era.

The aims of the modern prison in the developed countries of the world have been modified not only to protect the society but also to include retribution, deterrence, reformation and rehabilitation of the convicted prisoners (Abba & Mbagwu, 2016). Since Nigeria was a signatory to the UN Charter, the objectives of the Nigerian Prisons Service are not different from those adopted by the Western world. The Nigerian Prison Service is constitutionally responsible for the safe custody of offenders as well as their reformation, rehabilitation and re-integration, (Danbazzau, 2007) noted, that the rationale for imprisonment is evident in decree No 9 of 1972 which assigns the prison with the responsibilities among others to teach and train prisoners (inmates) to become useful and law abiding citizens on discharge.

Rehabilitation penology was said to have developed at the beginning of 20th century (Talba, 2015). Rehabilitation of individuals is aimed at removing the conditions presumed to have been the cause of the criminal behaviour. The inmates are classified and allocated workshops to work for the rest of their prison term (Pavic, & Kyyriazis, 2011). This, up till date continues to be the ideal picture of the nature of correctional centres worldwide. Preparing inmates for a successful return to the free community – rehabilitation -is one of the primary goals of prisons and jails. Institutional programmes ranging from daily work assignment to drug treatment are critical to any organised effort to offer offenders an opportunity to modify their behaviour (Davis, Jennifer and Robbert. 2016). According to the Nigerian Prison Service Manual (2011), the realisation of one of the major objectives of the prisons service - the reform and rehabilitation of inmates are to be done through a complicated set of mechanisms consisting of, among others: conscientisation, group work, case work session, recreational activities, religious services, adult and remedial education programmes, educational development project, skills acquisition programme, mid-range industrial production, agricultural service and after-care service programme. The prison's services providers should not only identify the causes of the prisons' inmates' anti-social behaviour but also endeavour to set them on the road to reform through induced self-rediscovery and eventual change for the better.

However, the problems of care and rehabilitation of prisoners is a major social problem in almost all the prisons in the country. Sokoto Medium Security Custodial Centre in particular needs much attention. Sokoto Medium Security Custodial Centre today holds more than its capacity and insufficiency of funds has made the upkeep of the inmates a difficult task. Despite various reforms embarked upon by government geared towards care and rehabilitation of prisoners in Nigeria, the conditions of these prisoners left much to be desired. The study seeks to answer the following questions: is the prison providing necessary environment for inmates to

become better citizens after serving their term? What are the operational strategies adopted to achieve the reformation and ultimate rehabilitation of prisoners?

Research Questions

1. What are the general conditions of inmates in Sokoto Medium Security Custodial Centre?
2. What are the methods of rehabilitations of inmates in Sokoto Medium Security Custodial Centre?
3. What are the factors militating against effective rehabilitation of inmates in Sokoto Medium Security Custodial Centre?
4. What could be done to improve the management of rehabilitation of inmates in Sokoto Medium Security Custodial Centre?

Objectives of the Study

The broad objective of the study is to examine the extent to which prison inmates are rehabilitated in Sokoto Medium Security Custodial Centre. Specifically, the study aims at:
1. examining the conditions of prison inmates in Sokoto State Central Prison
2. Identifying the methods of rehabilitating inmates in Sokoto Central Prison.
3. Examining the factors militating against effective rehabilitation of prison inmates in Sokoto Central Prison
4. Provide useful suggestions cum recommendations on how the problems of rehabilitation of prison convict can best be tackled.

Hypotheses of the Study

1. H0: There is no relationship between general conditions of inmates and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre.
2. H1: There is relationship between general conditions of inmates and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre.

Hypotheses Two

3. H0: There is no relationship between the methods of rehabilitations of inmates and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre.
4. H1: There is relationship between the methods of rehabilitations of inmates and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre.

Definition of Concepts

Crime
A crime is an unlawful act punishable by a state or other authority. A crime is an act harmful not only to some individuals but to the society at large. The notion that acts such as murder, rape, and theft are to be prohibited exists worldwide, Ernest, (2016).

Correctional Institution
The prison institutions are for ensuring punishment, penitence and correction of the offenders. Hassan & Oloyede, (2013) defined prison as a place delineated and declared by law of the state to ensure restraints and custody of the individuals accused or convicted of violating criminal law of the state.

Inmates
In the words of Abba (2016), prison inmate can be seen as a person who is kept in a confined place known as the prison, as an accused or convicted of violating the criminal law. Hence, in the context of this study, prison inmate can be seen as a person legally confined in an institution designed to securely house and rehabilitate the convicted or those on trial, Davis, Robert and Jennifer, (2014).

Rehabilitation
Concept of rehabilitation rests on the assumption that criminal behaviour is caused by some factor. This perspective does not deny that people make choices to break the law, but it does assert that these choices are not a matter of pure "free will." Instead, the decision to commit a crime is held to be determined, or at least heavily influenced, by a person's social surroundings, psychological development, or biological makeup, Campbell (2005).

Theoretical Framework
The Rehabilitation Theory is employed. Reaction to the early schools of penology and the idea that something more was needed, slowly gained acceptance throughout the nineteenth century. Jean Hampton, the major adherent of this theory sees punishment from different points of view that the aim of the penal system should be treatment and correction. The assumption of rehabilitation is that people are not natively criminal and that it is possible to restore a criminal to a useful life, to life in which they contribute positively to the development of themselves and the society.
According to Packer as cited in Dambazau, (2007:310), the rehabilitation theory teaches us that "… we must treat each offender as an individual whose special needs and problems must be known … in order to enable us deal effectively with him". Analysing rehabilitation as a justification for punishment, packer further noted that the rehabilitative idea may be used to prevent crime by changing the personality of that offender that punishment in the theory is forward looking; that the inquiry is not into how dangerous the offender is but rather into how amenable to treatment he is. However, packer also noted that the gravity of the offence committed may not give us clue as to the intensity and duration of the measures needed to rehabilitate.

In addition, Siegel (2005:371) affirmed that rehabilitation embraces the notion that given the proper care and treatment, criminals can be changed into productive, law – abiding citizens. Influenced by the positivist criminology, the rehabilitation school suggests that people commit crimes through no fault of their own. Instead criminals themselves are the victims of social injustice, poverty and racism, their acts are a response to a society that has betrayed them and because of their disturbed and impoverished upbringing, they may be suffering psychological problems and personality disturbances that further enhance their crime committing capacities.

Similarly, Ugwuoke (2000:56) asserts that, "rehabilitation requires that the offender be treated humanely with dignity and respect, be shown love, kindness and compassion not cruelty, contempt and hate."

This theory indeed captures the thrust of this study as it tries to establish the justification or rationale behind the treatment of inmates by "changing the attitude and behaviour of criminals so that they will be able to choose lawful means, in satisfying their needs."

Methodology

Research design strategy

Research approach employed is a mixed method which is the use of both quantitative and qualitative research approaches to gather data to inform this study. Quantitative research was used to collect numerical data in order to explain, predict and control phenomena of interest and data analysis was mainly statistical.

Sample Size and Sampling techniques

The target population for this study are the inmates and the authorities of Sokoto Meduim Security Custodial Centre. Based on the Raosoft sample size calculator using the confidence level of 95% and the margin of error at 5% the sample size of the population study is therefore 264. The sample technique applied in this study is a two stage cluster sampling, where a simple random sample of clusters was selected for fair representation, and within each sampled cluster a simple random sampling method was applied.

Methods of Data collection

Methods of data collection include primary and secondary wherein the primary method of data collection, two instruments were used which are the Questionnaire and Interview. And Secondary data on the other hand were collected through a descriptive analysis of published and unpublished literature, that include textbooks, professional journals, magazines, newspapers, internet materials, and papers presented at seminars and conferences.

Data Analysis

The data collected were analysed using descriptive statistics, specifically using distribution tables, charts, and other measures of central tendencies by the help of Statistical Package for Social Science (SPSS). Such were used to achieve the objectives. Where Chi-square table was used to test the hypotheses.

The Conditions of Prison Inmates in Sokoto State Central Prison

This section is designed to examine items relating to the conditions of prison inmates in Sokoto Medium Security Custodial Centre.

Table 1: Inmates' Perspective on their Condition in the Medium Security Custodial Centre

Rehabilitation Services/Programmes	Agree		Undecided		Disagree		No Response	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
I receive support from the staff in this custodial centre when I need it	139	63.2	12	5.3	46	21.1	23	10.5
I have been taught how to address/control my offending behaviour in this custodial centre	153	69.5	7	3.2	35	15.8	25	11.6
I am being helped to lead a law abiding life after released	176	80.0	2	1.1	17	7.4	25	11.6
I am encouraged to work towards goals/targets in this custodial enter	170	76.8	2	1.1	23	10.5	25	11.6
Most of the rehabilitation services in this custodial Centre are not working	111	50.5	9	4.2	75	33.7	25	11.6
The staff paid little attention to the used of rehabilitation programmes available	127	57.9	12	5.3	56	25.3	25	11.6
The quality of my living conditions in this custodial Centre is poor	118	53.7	16	7.4	56	25.3	30	13.7
Security								
This custodial Centre is well secured because the staff carried out their security task properly	174	78.9	2	1.1	21	9.5	23	10.5
There is no where I can go in this custodial Centre without being observed, assessed and evaluated	167	75.8	-	-	30	13.7	23	10.5
The prevention of self-harm and suicide is a top priority in this custodial Centre	158	71.6	14	6.3	25	11.6	23	10.5

Drugs								
The level of drugs abused in this custodial Centre is high	56	25.2	18	8.4	121	54.8	25	11.6
The custodial Centre is not doing much to prevent drugs been smuggled	74	33.7	5	2.1	113	51.6	28	12.7
Treatment								
Bullying behavior and threat is on the high level in this custodial Centre	81	36.9	29	13.1	85	38.5	25	11.5
The disciplinary system in this custodial Centre is unfair	100	45.2	22	10.3	75	34.0	23	10.5
The correctional officials treats inmates fairly when applying the rules	169	76.8	9	4.2	19	8.5	23	10.5
My legal rights as an inmate is respected in this custodial Centre	111	50.5	7	3.2	77	34.8	25	11.5

Table 1 shows the inmates' perspective on their condition in the medium security custodial centre. The first section in the Table shows the rehabilitation services and programmes in which 63.2% of the inmates indicated that they receive support from the staff of the custodial centre whenever the need arises, 69.5% indicated that they have been taught how to control my offending behaviour in this custodial centre, 80.0% indicated that the programme will help them to lead a law abiding life after they are released, 76.8% indicated that the programme has encouraged them to work towards goals/targets.

Contrary to all of the positive effects of the rehabilitation services and programmes the result show that 50.5% of the respondents indicated that most of the rehabilitation services in this custodial centre are not working. 57.9% indicated that the staff paid little attention to the use of rehabilitation programmes available. 53.7% indicated that the quality of their living conditions in this custodial centre is poor.

The section on security shows that 78.9% of the inmates indicated that their custodial centre is well secured because the staff carried out their security task properly, 75.8% indicated that there is no where they can go within the custodial centre without being observed, assessed and evaluated, 71.6% indicated that prevention of self-harm and suicide is a top priority in this custodial centre.

Regarding drugs, 54.8% of the inmates indicated that the level of drugs abuse in the custodial centre was not high and 51.6% also indicated that the custodial centre is doing much to prevent drug being smuggled into the centre.

Lastly on treatment, 36.9% of the inmates indicated that bullying behaviour and threat were on the high level in this custodial centre, 45.2% of the respondents indicated that the disciplinary system in the custodial centre is unfair, 76.8% indicated that the correctional officials treats inmates fairly when applying the rules, 50.5% indicated that inmates' legal rights were respected in the custodial centre.

The Methods of Rehabilitating Inmates in Sokoto Medium Security Custodial Centre
The tables presented below showed the methods used for rehabilitation of inmates in Sokoto medium security custodial centre.

Table 2: Rehabilitation Programmes, Time and Functions

Rehabilitation Programmes Available in the Custodial Centre	Frequency	Percentage
Tailoring	23	10.5
Islamic education	21	9.5
Western education	30	13.7
Carpentry	9	4.2
Sport	5	2.1
Welding	14	6.3
Other Skills acquisition	74	33.7
No Response	44	20.0
Total	**220**	**100.0**
Number of times Programmes hold		
Once time a week	39	17.9
Two times a week	42	18.9
Three times or more a week	113	51.6
No Response	26	11.6
Total	**220**	**100.0**
Functions of a correctional Programme/Services		
To change people's attitude from bad to good	116	52.6
To guide and protect prisoner from crime	47	21.1
Justice to prevail	18	8.4
No Response	39	17.9
Total	**220**	**100.0**

The result on Table 2 shows that seven rehabilitation services were available in the prison, 33.7% were other skill acquisition, 13.7% were western education, 10.5% were tailoring, 9.5% was Islamic education, 6.3% were welding, 4.2% were carpentry, 2.1% were sport.

Also, 51.6% of the inmates indicated that rehabilitation programme holds three or more times in a week. So also, the research found that the correctional home performed three major functions; 52.6% was to change people's attitude from bad to good, 21.1% was to guide and protect prisoners from crime and 8.4% indicated that it was to ensure that justice prevailed. However, the major function of the correctional service was to correct or change the inmates attitudes from bad to good.

Table 3: Effectiveness of the Custodial Centre

Effectiveness of this custodial centre as a correctional institution	Frequency	Percentage
Very effective	72	32.6
Effective	88	40.0
Not Effective	12	5.3
Missing System	48	22.1
Total	**220**	**100.0**
Can you describe yourself as changed person now		
Yes	164	74.7
No	23	10.5
Missing System	33	14.7
Total	**220**	**100.0**

Table 3 shows that 32.6% and 40.6% of the inmates indicated that the custodian centre was very effective and effective respectively which implies that 72.6% see the custodian centre as an effective correctional institution. This is because 74.7% of the inmate indicated that thus far they are changed persons.

Factors militating against effective rehabilitation of inmates in Sokoto Medium Security Custodial Centre

This section contains only one table that shows the factors that are militating against the effectiveness of rehabilitation of inmates in Sokoto Medium Security Custodial Centre. In all three items were considered in this section.

Table 4: Militating Factors

Items	Frequency	Percentage
Level of satisfaction with provision of good		

quality food		
Low	49	22.1
Moderate	21	9.5
High	44	20.0
No Response	106	48.4
Total	**220**	**100.0**
Level of satisfaction with provision of good quality accommodation		
Low	70	31.6
Moderate	25	11.6
High	37	16.8
No Response	88	40.0
Total	**220**	**100.0**
Cause of rise of recidivism in this custodial centre		
Lack of intelligent	49	22.1
Drugs addict	7	3.2
Lack of attention	25	11.6
Lack of amnesty	5	2.1
Lack of job opportunity	67	30.5
No justice	23	10.5
Missing System	44	20.0
Total	**220**	**100.0**

Table 4 shows that 22.1% of the inmates indicated that their level of satisfaction with the provision of good quality food is low, 31.6% indicated that their level of satisfaction with provision of good quality accommodation is also low and 30.5% of the inmates indicated that lack of job opportunity is the cause of rise of recidivism in this custodial centre. The result implies that within the facility good quality food and good quality accommodation are the factors that are militating against the effectiveness of rehabilitation of prison inmates in Sokoto Central Prison. While on the other hand, lack of job opportunity account for the rise of recidivism in this custodial centre, thereby militating against the effectiveness of the centre.

Hypotheses Testing

This section dealt with the analysis and interpretation of the results gotten from the two hypotheses that were tested.

Hypothesis One

H0: There is no relationship between general conditions of prisoners and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre
H1: There is relationship between general conditions of prisoners and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre

Table 5: Chi-Square Table

		Can you describe yourself as changed person now		Total	Pearson Chi-Square Value	df	Asymp. Sig. (2-sided)
		Yes	No				
This custodial centre is well secured, the staff carried out their security task properly	Strongly agree	52	3	55	14.352[a]	4	.006
	Agree	44	4	48			
	Neither agree nor disagree	5	0	5			
	Disagree	7	3	10			
	Strongly disagree	0	3	3			
Total		108	13	121			

Table 5: The result has shown that the Calculated Chi-square (X-Cal), which is 14.352[a] is more than the table value (X-tab), which is 5.991 at df = 4 and 0.05 level of significance. This, means that the H_0 which states that there is no relationship between general conditions of prisoners and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre is rejected while the H_1 which states that there is relationship between general conditions of prisoners and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre accepted.

Hypothesis Two

H0: There is no relationship between the methods of rehabilitations of prisoners and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre.
H1: There is relationship between the methods of rehabilitations of prisoners and the effectiveness of the rehabilitation of inmates in Sokoto Medium Security Custodial Centre.

Table 6: Chi-Square Table

		Can you describe yourself as changed person now		Total	Pearson Chi-Square Value	Df	Asymp. Sig. (2-sided)
		Yes	No				
Do you receive any	Yes	76	5	81	5.144[a]	1	.023

supervision from the correctional authorities	No	27	4	31
Total		103	9	112

Table 6 The result has shown that the Calculated Chi-square (X-Cal), which is 5.144[a] is more than the table value (X-tab), which is 5.991 at df = 1 and 0.05 level of significance. This, means that the H_0 which states there is no relationship between the methods of rehabilitations of prisoners and the effectiveness of the rehabilitation of inmates in Sokoto Central Prison is rejected while the H_1 which states that there is relationship between the methods of rehabilitations of prisoners and the effectiveness of the rehabilitation of inmates in Sokoto Central Prison is accepted.

Conclusion

Given that the rehabilitation of offenders can be achieved through carefully designed and well-articulated reformative and rehabilitative programmes, this current research attempts to offer an understanding of the rehabilitation programmes available in Sokoto Medium Custodial Centre as experienced by the inmates, as well as their effectiveness. The study found out based on the results that the inmates received support from the staff of the custodial centre whenever the need arose, that they were taught how to address and control their offending behaviour in the custodial centre and that the programme has encouraged them to work towards goals and targets. All of these would eventually help them to lead a law-abiding life after they are released. On the other hand, most of the rehabilitation services in the custodial centre are not working because of the lack of working materials and insufficient funding. Also, the research further reveals that the living conditions in the custodial centre are very poor.

Through a hypothesis testing the study was able to find out that there is relationship between general conditions of prisoners and the effectiveness of the rehabilitation of inmates in Sokoto Medium Custodial Centre. Prison system is a smaller society within the larger society. What transpires in the prison definitely affects the larger society. Negligence in the provision and maintenance of rehabilitation facilities affected the prison as an institution in carrying out its statutory function; this is evident in the research hypothesis two which according to findings the study accepted that there is relationship between the methods of rehabilitations of inmates and the effectiveness of the rehabilitation of inmates in Sokoto Medium Custodial Centre.

The study therefore, recommends that the Government should develop alternative forms of sentencing other than incarceration to reduce overcrowding and to ease offender's integration into the society. States should endeavour to carry out prison reforms from time to time. There should also be Provision of a healthy and conducive environment for the inmates. Recreation of effective rehabilitation programmes by the government for the correctional centre to serve its main purpose. There is also a special need for the introduction of an online University system such as NOUN in the custodial centre as 85% of the inmates are youth within their productive stage with no higher education and most of them spend a very long time awaiting trial some up to sixty (60) months. So instead of spending their productive stage in a confinement and later

after release struggle for an education, there is need for the Government to introduce a degree level education in the custodial centre as there is in the Kaduna Central correctional centre.

References

Abba,M.,& Mbagwu, F. O.(2016).Vocational Skills Training Needs of Prison inmates for Economic Growth in Katsina State, Nigeria. Paper presented at the 2016 National Conference of the Nigeria National Council for Adult Education, Owerri, Imo State, Nigeria

Campbell, D. K. (2005). *The context of information behaviour of prison inmate*. Progressive librarian. Retrieved from, http://www.ncic. Gov/Features/Library/?AU=Campbell%Diane%20K(08-01-2018).

Dambazau, A.B. (2007). *Criminology and Criminal Justice (2nd ed.)*. Westerville: Glencoe / McGreaw

Davis, L. M, Robert, B.,& Jennifer, S. (2016). Corrections Based Vocational Training Programs: Crime solutions: Santa Monica, National Institute of Justice (NIJ) Report

Ernest Klein, (2016). *Klein's Comprehensive Etymological Dictionary of the English Language*Archived

Hassan, M.A, & Oloyede, T.O. (2013). *Evaluation of Component of Adult Education on the Inmates Welfare in Agodi Prison Yard*, Ibadan, Oyo States, Nigeria: *International Journal of correctional education.*

Pavic, S. & Kyriazis, J. (2011). *Presumed innocent behind bars: the problem of lengthy pre-trial detention in Uganda*. University of Toronto : Faculty of Lae: Avocates Sans Frontieres.

Read,S.J. (1969). *Kenya, Tanzania, and Uganda*. In A. Milner (Ed), Africa Penal systems. London: Routledge& Kegan Paul.

Sarkin-Haughes,J. (2008). Cape Town, South Africa; Athens, Ohio:HRSRC Press; Ohio University Press.

Siegel, L. J. (2005). *Criminology: The core.* London: Thompson and Wadsworth, Inc.

Talba, A. M. (2015). *Remembering the inmates of Kaduna Prison*. Daily Trust News PaperReport, April, 22. Retrieved August, 2015fromhttp://www.dailytrust.com.ng/daily/index.php/feature/52674-rememb...

Ugwuoke, C. U. (2000). The dilemma of the Nigerian prisons' service: Implications for criminal justice delivery system in Nigeria. In N. G. Egbue (Ed). *Journal of sociology*. Awka: Nnamdi Azikiwe University, Awka. Vol. 1 (2): 50 – 59.

Students' Perception of the Constraints of Writing Computer Based Test on Office Technology and Management Courses in Polytechnics in Delta State

By

Onojaife, Caroline Azuoma

Abstract: *In order to execute this study, three research questions were raised and three null hypotheses were tested. The study adopted descriptive survey design. A sample of 180 respondents were purposively selected from the entire population of 1819 OTM students in the three public owned polytechnics in Delta State. A validated questionnaire containing 15 items with an overall reliability of 0.84 established by Cronbach alpha was used for data collection. Findings of the study revealed that OTM students agreed that there are computers, administrative and personnel constraints of writing CBT on OTM course in polytechnics in Delta State. The study further disclosed that OTM students in OND and HND level has no significant difference in their mean ratings on the computer, administrative and personal constraints of writing CBT on OTM courses in polytechnics in Delta State. The study concluded that OTM educators must actively use ICT in their day to day classroom activities to enable their students acquire a wide range of e-assessment skills to manage the immediate constraints of writing CBT in polytechnics. It was recommended among others that management of polytechnics should see to the provision of functional desktops and laptops with reliable internet connection to facilitate the use of computer based examination across all schools and programmes of polytechnics in Delta State.*

Introduction

Education is a major instrument used by nations to free their citizenry from the chains of colonial slavery, ignorance and poverty. Educational system of nations is structured based on needs and demands of their immediate society. Correspondingly, Ementa and Onokpaunu (2019) asserted that the Nigerian educational system is systematically structured into pre-primary, basic, secondary and tertiary education. Tertiary education is the zenith of formal teaching and learning engagements experienced by an average Nigerian student. Holistically, Dada and Eni-Olorunda (2014) averred that tertiary education include undergraduate and postgraduate programmes of universities, colleges of education, polytechnics as well as institutes of technology that provide advanced educational experiences and training.

Ideologically, polytechnics are technical institutes of learning set up for equipping students with the requisite practical skills needed by engineering, industrial and production firms. In Nigeria, federal and state owned polytechnics run two major programmes, which are National Diploma (ND) and Higher National Diploma (HND). One of the technology oriented based programmes offered in polytechnics is office technology and management. Historically, Office Technology and Management (OTM) programme was designed by the National Board for Technical Education (NBTE) to replace the Secretarial Studies programme which had been on stream since 1989. The replacement was as a result of the former programme inability to prepare students for the innovative and global practices of the 21st century office occupations. In

this light, Ohakwe and Njoku (2008) reported that between Wednesday 17th November 2004 and Friday 26th November 2004, the UNESCO Nigeria Project in support of revitalisation on Technical and Vocational Education (TVE) in Nigeria held a workshop at Kaduna on "Train-the-Trainers", for the review of Business and Management curricula for Polytechnics.

It is important to note that the participation of UNESCO experts during the review resulted in an international outlook leading to the integration of information and communication technologies (ICTs) and modern workplace practices, skills and curriculum procedures not included in the old Secretarial Studies programme. Office Technology and Management (OTM) is a comprehensive activity-based educational programme that is concerned with the acquisition of office technology and management skills, work habits and competencies that are essential in secretarial and office occupations (Udo, 2008). The aim of OTM programme as stipulated by the National Board for Technical Education (NBTE) in Oborah (2011) is to equip students with secretarial/office skills for employment in various fields of endeavour as well as to equip them with effective work competencies and socio-psychological work skills which are very essential in everyday interactions in human societies.

Office Technology and Management (OTM) according to Aina (2019), is a subset of business education programme designed to prepare students who are interested in developing careers in keyboarding operation, stenography, office management, establishment of business training school, computer centres, data processing, small or medium business enterprises and teaching through the acquisition of appropriate skills, knowledge abilities and attitude that will make them enter and progress in their economic endeavour. Correspondingly, Ezenwafor (2012) averred that OTM, which is an option in business education programme, is concerned with producing graduates who can quickly access data or information, process, disseminate, store and retrieve for future use as demanded by their employers or supervisors. Hence, Igbinoba (2008) and Aina (2019) opined that OTM courses include shorthand, keyboarding, office practice, record-keeping, word processing, secretarial duties, business methods, office practice, business law, computer appreciation and application, and consumer education, office management, small business management, and entrepreneurship education.

According to Udo and Bako (2014), the teaching of OTM courses enable students to:

a) perform general office work by relieving executives and other company officials of minor executive and clerical duties
b) take down dictation from the boss using shorthand or stenotype machine
c) transcribe dictation or the recorded information reproduced on a transcribing machine
d) make appointments for the executive and reminding him or her of them
e) interview people coming into the office and directing to other workers those who do not need to see the chief executive
f) handle personal and important mails, writing routine correspondence on his/her own initiatives
g) make and answer telephone calls
h) supervise other clerical workers
i) keep personnel records of events in the offices

In educational parlance, educators' use examination and test exercises to determine the efficacy of their instructional delivery and measure students' academic performance. Although, social entrepreneurs believed that examination does not reveal the hidden potentials of a student, academicians opined that examination has a way of exposing students to the necessary skills, attributes, attitudes and mental awareness needed to succeed in both formal and informal

settings. Hence, Emaikwu (2012) viewed examination as part of evaluation which determines a learner's level of skill acquisition or intellectual competence and understanding. In Nigerian polytechnics, almost 90 percent of examination and test exercises are conducted using the pen and paper format. Anene (2016) averred that pen and paper format of examination is an assessment technique in which students read questions and respond in writing on authorised paper sheet.

Paper and pen format of examination encourages students to process and provide academic information in their own words within a flexible timeframe. Thus, one can infer that pen and paper system of examination facilitates retention of basic knowledge of subject matters. Despite the usefulness of the pen and paper format of examination, the advent of ICTs has institutionalised intelligent ways of encouraging various forms of examination malpractice. Students now record and play presumed questions and answers on their earphones and mobile phones in examination halls without the knowledge of invigilators and teachers. Comprehensively, Anene (2016) stated that pen and paper examination enables students to bring foreign material into the examination hall, aids them to write on currency notes and identity cards and facilitates spying of other candidates' works, substitution of answer sheets and change of examination scores or grades by teachers. Others include, impersonation, leakage of questions to students before the examination day, conniving with supervisors and school authorities to cheat, establishment of special or miracle examination centres across the country, female students writing answers on hidden parts of their bodies.

Without any iota of doubt, examination malpractices mitigate the standard, reliability, objectivity and credibility of assessment exercises. The clarion call for standardization of assessment exercises led to the advent of Computer Based Test (CBT). According to Sadiq and Onianwa (2011), CBT is an internet based test or assessment powered by computer or other technological devices. It can take two formats: The first type requires the student to fill in their answers on a paper form which is then fed into a computer optical mark reader. Here the reading of the paper, scoring, and report on the test reliability is done. In the second type, the computers provide an assessment interface for students to input their answers and receive immediate feedback. In another note, Ajinaja (2017) posited that linear test and adaptive test are the two types of CBT. Linear test involves a full-length examination in which the computer selects different questions for individuals without considering their performance level. While in adaptive test, the computer selects the range of questions based on an individual performance level. The questions are taken from a very large pool of possible questions categorised by content and difficulty.

Undoubtedly, computer based test is one of the impact of ICTs on educational practices. In education literature, Computer Based Test (CBT) is also known as Computer Assisted Testing (CAT), Computerised Assessment, Computer Aided Technology (CAA) Computer Based Assessment (CBA), Online Assessment, West-Based Assessment, Technology Enhanced Assessment, Automation Assessment and E-Assessment, Test or Examination (Obioma, Junaidu & Ajagun, 2013; Alabi, Issa, &Oyekunle, 2012). Ogechukwu (2019) described CBT as a form of ICT platform for test administration or assessment where examinees' responses are electronically coded, assessed, recorded with prompt publication of results. One can infer that the immediate feedback mechanism of CBT on students' performance makes the pen and paper examination less attractive in educational institutions. More so, Kuzmina (2010) stressed that CBT reduced testing time, increased test security, provision of instant scoring, better use of professional time, reduced time lag, suitable for individual or groups testing, greater

standardisation and control, greater utility for special students and long-term cost savings for educational institutions.

The discourse on the shift from pen and paper format of assessment to computer assessment comes with its own constraints. The fact that CBT requires a lot of ICT facilities and gadgets to achieve its purpose is a major constraint in a developing nation like Nigeria. One may wonder how a nation that cannot provide cheap books and writing materials for her citizenry will be able to provide relatively expensive ICT infrastructural and facilities for conducting successful CBT in her educational institutions. Khaleel (2017) opined that the frequent updates of ICT resources and virus attacks on the security network of digital platforms are some of the constraints of CBT. Inadequate technology infrastructures such as frequent power outage and poor internet connectivity as well as inadequate ICT experts who are competent to handle CBT activities of programming, assembling and arranging is a great challenge to its application (Kas & Yah, 2018).

The application of CBT system in writing OTM courses in polytechnics provides an innovative outlet for preparing students for the already computerised office work. However, this system of examination is expensive and requires enormous funding due to frequent upgrades and changes of ICT hardware and software, fund to train facilitators and preservation of acquired ICT resources (Friedrich, 2008). In their view, Nkwocha, Akanwa and Nkwocha (2015) opined that power failure, insufficient supply of computers, candidates' poor competence in the use of computers and lack of adequate assistance for candidates who experience technical hitches in CBT centres are parts of the constraints of writing CBT. With these in mind, OTM students may experience computer, administrative and personal constraints among others when writing CBT in polytechnics.

The researcher observed that Departments of Office Technology and Management (OTM) in polytechnics in Delta State, Nigeria are yet to develop a proactive ICT culture among educators and students in the course of teaching and learning. This observation cast doubt on the researcher, if truly CBT systems are used in assessing students' academic performance in OTM courses. From literature gathered, there are a lot of research works on the usefulness of CBT in secondary schools and universities in Nigeria but empirical studies on the students' perception on the constraints of writing CBT on OTM courses in polytechnics in Delta State are rare. In a bid to fill this gap in knowledge, the researcher sought to determine students' perception on the computer, administrative and personal constraints of writing CBT on OTM courses in polytechnics in Delta State. With these objectives, the paper is guided by the following research questions and hypotheses.

Research Questions

1. What are the computer constraints of writing CBT on OTM courses as perceived by students in Delta State?
2. What are the administrative constraints of writing CBT on OTM courses as perceived by students in Delta State?
3. What are the personal constraints of writing CBT on OTM courses as perceived by students in Delta State?

Hypotheses

1. OND and HND students do not differ significantly in their mean ratings on the computer constraints of writing CBT on OTM courses in Delta State.

2. OND and HND students do not differ significantly in their mean ratings on the administrative constraints of writing CBT on OTM courses in Delta State.
3. OND and HND students do not differ significantly in their mean ratings on the personal constraints of writing CBT on OTM courses in Delta State.

Method

This study adopted a descriptive survey design. The study was conducted in Delta State. A sample of 180 respondents was purposively selected from the entire population of 1819 OTM students in the three public owned polytechnics in Delta State. A structured and validated questionnaire containing 15 items on a 4-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly disagree (SD) was used for data collection. Face validity of the instrument was determined by two experts; one in the Department of Business Education and the other from Educational Technology all from Nnamdi Azikiwe University, Awka. A pilot test was conducted to establish the reliability of the instrument by administering it to 20 OTM students in Federal Polytechnic Oko, Anambra State who were not part of the study and the data collected were analysed using Cronbach alpha to obtain reliability coefficients of 0.77, 0.83 and 0.91 with an overall reliability of 0.84 for the three clusters of the instrument. The researcher administered the instrument to the subjects with the help of three research assistants. Mean and standard deviation were used to answer the research questions and determine the homogeneity or otherwise of the respondents' views. Decisions on the research questions were based on the grand mean in relations to the real limits of numbers. Therefore, items with mean ratings of 1.00 - 1.49 are rated Strongly Disagree, those with 1.50 - 2.49 are Disagree, items with mean ratings of 2.50 - 3.49 are rated Agree and those with 3.50 - 4.00 are rated Strongly Agree. T-test was used to test the null hypotheses at 0.05 level of significance. A hypothesis was accepted where the p-value is equal to or greater than the alpha level of 0.05 ($p > 0.05$), at a degree of freedom; otherwise, the null hypothesis was rejected. The analysis was carried out using SPSS version 23.0.

Results

Research Question 1: What are the computer constraints of writing CBT on OTM courses as perceived by students in Delta State?

Table 1

Respondents' mean ratings on computer constraints of writing CBT on OTM courses

S/N	Computer constraints	$\bar{X}$	SD	Remarks
1	Shortage of functional computers	3.79	0.32	SA
2	Poor broadband width for computers in the polytechnic	3.02	0.61	A
3	Slow intranet services from the polytechnic main server	2.84	0.27	A
4	Unstable biometric capturing of students' identity	2.66	0.54	A
5	Programmed computer time for CBT is too short	3.91	0.77	SA
	Cluster Mean	**3.24**		**A**

Data in Table 1 show that respondents agreed that three (items 2, 3 and 4) with mean ratings ranging from 2.66 to 3.02 are computer constraints of writing CBT on OTM courses while the remaining two (items 1 and 5) with mean ratings of 3.79 and 3.91 were strongly agreed by respondents. The cluster mean score of 3.24 means that OTM students agree that there are computer constraints of writing CBT on OTM courses in polytechnics in Delta State. The standard deviations for all the items are within the same range showing that the respondents are not wide apart in their ratings.

Research Question 2: What are the administrative constraints of writing CBT on OTM courses as perceived by students in Delta State?

Table 2

Respondents' mean ratings on administrative constraints of writing CBT on OTM courses

S/N	Administrative constraints	$\bar{X}$	SD	Remarks
6	Lack of ICT experts to solve technical issues in CBT centres	3.73	0.74	SA
7	Non-provision of reliable power supply in CBT centres	3.89	0.26	SA
8	Non-provision of generators in CBT centres	3.76	0.44	SA
9	Provision of unconducive CBT centres	3.64	0.59	SA
10	Presence of unfriendly invigilators in CBT centres	3.58	0.81	SA
	Cluster Mean	**3.72**		**SA**

Data in Table 2 show that respondents strongly agreed that all the items raised with mean ratings ranging from 3.58 to 3.89 are administrative constraints of writing CBT on OTM courses. The cluster mean score of 3.72 means that OTM students strongly agree that there are administrative constraints of writing CBT on OTM courses in polytechnics in Delta State.Standard deviations for all the items are within the same range which shows that the respondents were homogeneous in their opinions.

Research Question 3: What are the personal constraints of writing CBT on OTM courses as perceived by students in Delta State?

Table 3

Respondents' mean ratings on personal constraints of writing CBT on OTM courses

S/N	Personal constraints	$\bar{X}$	SD	Rmrks
11	Students are not comfortable sitting for CBT	2.96	0.28	A
12	Students are not computer literate enough for CBT	3.01	0.43	A
13	Students have technophobia for CBT	2.80	0.19	A
14	Students have computer anxiety for CBT	3.37	0.52	A
15	Students are not able to finish CBT on time	3.59	0.34	SA
	Cluster Mean	**3.15**		**PT**

Data in Table 3 shows that respondents agreed that four (items 11, 12, 13 and 14) with mean ratings ranging from 2.80 to 3.37are personal constraints of writing CBT on OTM courses while the remaining one (item 15) with a mean rating of 3.59 was strongly agreed by respondents. The cluster mean score of 3.15 means that OTM students agree that there are personal constraints of writing CBT on OTM courses in polytechnics in Delta State. The standard deviations for all the items are within the same range showing that the respondents are not wide apart in their ratings.

Hypothesis 1: OND and HND students do not differ significantly in their mean ratings on the computer constraints of writing CBT on OTM courses in Delta State.

Table 4

t-test summary of respondents' mean ratings on the computer constraints of writing CBT on OTM courses (OND = 100; HND = 80)

S/N	Computer constraints	X_1	SD_1	X_2	SD_2	Df	t-cal	Sig.	Rmrks
1	Shortage of functional computers	3.13	.52	2.74	.76	178	.94	.27	NS

2	Poor broadband width for computers in the polytechnics	2.63	.37	2.97	.53	178	1.02	.38	NS
3	Slow intranet services from the polytechnic main server	2.72	.16	3.06	.27	178	1.41	.41	NS
4	Unstable biometric capturing of students' identity	2.94	.41	3.11	.35	178	3.22	.00	S
5	Programmed computer time for CBT is too short	3.29	.28	2.75	.42	178	.86	.22	NS

Key: **X_1**= Mean of OND respondents; **X_2** = Mean of HND respondents; **SD_1**= Standard Deviation of OND respondents; **SD_2**= Standard Deviation of HND respondents; **Sig.** = probability value (2 tailed); **t-cal=** calculated values; **S**= significant; **NS**= Not Significant.

Data in Table 4 present the summary of mean ratings of OTM students on the computer constraints of writing CBT on OTM courses in polytechnics in Delta State. The data revealed that one item with p-value of .00 lesser than the significant value of 0.05 at 178degree of freedom. This indicates that there is significant difference in the mean ratings of OND and HND students. Therefore, the hypothesis of no significant difference in the mean ratings of the respondents on item 4 was rejected. On the other hand, hypothesis of no significant difference for items 1, 2, 3 and 5 was accepted since the Sig values of these items, ranging from .22 to .41 are greater than 0.05. Therefore, the null hypothesis of no significant difference in the mean ratings of respondents on the computer constraints of writing CBT on OTM courses was accepted. On the whole, OND and HND students do not differ significantly in their mean ratings on the computer constraints of writing CBT on OTM courses in polytechnics in Delta State.

Hypothesis 2: OND and HND students do not differ significantly in their mean ratings on the administrative constraints of writing CBT on OTM courses in Delta State.

Table 5

t-test summary of respondents' mean ratings on the administrative constraints of writing CBT on OTM courses (OND = 100; HND = 80)

S/N	Administrative constraints	X_1	SD_1	X_2	SD_2	Df	t-cal	Sig.	Rmrks
6	Lack of ICT experts to solve technical issues in CBT centres	2.95	.29	3.04	.63	178	1.18	.13	NS
7	Non-provision of reliable power supply in CBT centres	3.81	.25	2.53	.24	178	.52	.19	NS

8	Non-provision of generators in CBT centres	3.16	.32	2.71	.15	178	.98	.22	NS
9	Provision of unconducive CBT centres	3.04	.45	3.02	.43	178	.62	.35	NS
10	Presence of unfriendly invigilators in CBT centres	2.73	.64	2.94	.25	178	.72	.08	NS

Data in Table 5 presents the summary of mean ratings of OTM students on the administrative constraints of writing CBT on OTM courses in polytechnics in Delta State. The data revealed that hypothesis of no significant difference for items 6, 7, 8, 9 and 10was accepted since the Sig values of these items, ranging from .08 to .35 are greater than 0.05. Therefore, the null hypothesis of no significant difference in the mean ratings of respondents on the administrative constraints of writing CBT on OTM courses was accepted. On the whole, OND and HND students do not differ significantly in their mean ratings on the administrative constraints of writing CBT on OTM courses in polytechnics in Delta State.

Hypothesis 3: OND and HND students do not differ significantly in their mean ratings on the personal constraints of writing CBT on OTM courses in Delta State.

Table 6

t-test summary of respondents' mean ratings on the personal constraints of writing CBT on OTM courses (OND = 100; HND = 80)

S/N	Personal constraints	X_1	SD_1	X_2	SD_2	Df	t-cal	Sig.	Rmrks
11	Students are not comfortable sitting for CBT	2.95	.29	3.04	.63	178	1.18	.45	NS
12	Students are not computer literate enough for CBT	3.81	.25	2.53	.24	178	.52	.16	NS
13	Students have technophobia for CBT	3.16	.32	2.71	.15	178	.98	.11	NS
14	Students have computer anxiety for CBT	3.04	.45	3.02	.43	178	.62	.32	NS
15	Students are not able to finish CBT on time	2.73	.64	2.94	.25	178	.72	.23	NS

Data in Table 6 present the summary of mean ratings of OTM students on the personal constraints of writing CBT on OTM courses in polytechnics in Delta State. The data revealed that hypothesis of no significant difference for items 11, 12, 13, 14 and 15was accepted since the Sig values of these items, ranging from .11 to .45 are greater than 0.05. Therefore, the null hypothesis of no significant difference in the mean ratings of respondents on the personal constraints of writing CBT on OTM courses was accepted. On the whole, OND and HND students do not differ significantly in their mean ratings on the personal constraints of writing CBT on OTM courses in polytechnics in Delta State.

Discussion of Findings

Findings of the study revealed that OTM students agreed that there are computer, administrative and personnel constraints of writing CBT on OTM courses in polytechnics in Delta State. This result is consistent with that of Alabi, Issa and Oyekunle (2012) and Nkwocha, Akanwa and Nkwocha (2015) which reported that network problems, erratic power supply and inadequate skills in computer usage were identified as major challenges militating against effective use of CBT by students. In the same vein, Sanni and Mohammad (2015) reported that poor ICTs kills among students, dearth of adequate facilities at the examination centres and incapability of invigilators to give technical assistance to students due to their low capacity development are constraints of writing CBT.

In addition, the study revealed that OTM students in OND and HND level has no significant difference in their mean ratings on the computer, administrative and personnel constraints of writing CBT on OTM courses in polytechnics in Delta State. This implies that the constraints of writing CBT on OTM courses cut across all level of OTM students in the polytechnics. This finding is in consonance with Abubakar and Adebayo (2014), Khaleel (2017) and Rostaminez had (2018) who reported that lack of ICT infrastructure, frequent break down of computer hardware and software, lack of time as computer-based examination increase the response time compared to paper-based were students' challenges when writing CBT. The non-significance of OND and HND students on computer, administrative and personal constraints of writing CBT on OTM courses in polytechnics in Delta State is in agreement with the study of Fehintola (2018) who discovered students perceived that poor lightning of CBT halls, bad location of some CBT centres, unfriendly attitude of examination supervisors and invigilators to the tests in CBT centres were constraints of writing CBT in educational institutions.

Conclusion

The traditional pen and paper examination has become less relevant to the growing demands for ICT oriented workforce. Office Technology and Management (OTM) courses will add value to the credentials of their students if they are frequently assessed on ICT plat forms for smooth transition into the 21st century requirements of the paperless office. Based on the findings of the study, the researcher concluded that OTM educators must actively use ICT in their day to day classroom activities to enable their students acquire a wide range of e-assessment skills to manage the immediate constraints of writing CBT in polytechnics.

Recommendations

Based on the findings and conclusion of this study, the following recommendations were made:

1. Management of polytechnics should see to the provision of functional desktops and laptops with reliable internet connection to facilitate the use of computer based examination across all schools and programmes of polytechnics in Delta State.
2. Certified and qualified ICT developers and experts should be employed in polytechnics to manage all ICT facilities and provide technical assistance to students in the course of

writing CBT when there are cases of computer or internet trouble shooting in the centres.

3. Students should be oriented and encouraged to practice computer based assessment techniques in their continuous assessment in order to get familiarize with CBT in polytechnics.

References

Abubakar, A. S., & Adebayo, F. O. (2014). Using computer based test method for the conduct of examination in Nigeria: Prospects, challenges and strategies. *Mediterranean Journal of Social Sciences 5*(2), 47-55

Aina, M.A. (2019). Training Of Office Technology and Management Education Students for Job Demands and Self-Employment in Ekiti State, Nigeria. *Journal of Advances in Social Science and humanities, 5*(4), 703–714

Ajinaja, M. (2017).The design and implementation of a computer based testing system using component-based software engineering. *International Journal of Computer Science and technology, 8*(1), 58 – 65

Alabi, A.T., Issa, A.O., & Oyekunle, R.A. (2012). The use of computer based testing method for the conduct of examinations at the University of Ilorin. *International Journal of Learning & Development, 2*(3), 68– 80

Anene, E.I. (2016). *Assessment of students' perception of joint admission and matriculation board computer based examination in Nnamdi Azikiwe University Awka, Anambra State, Nigeria*. Unpublished Masters' Thesis, Department of Educational Foundations and Curriculum, Faculty of Education, Ahmadu Bello University, Zaria, Nigeria

Dada, O. C., & Eni-Olorunda, T. (2014). Experienced Barriers by Persons With Special Needs On Access To Higher Institutions. *International Journal of Education Learning and Development, 2*(3), 44-59

Emaikwu, S.O. (2012). *Assessing the Impact of Examination Malpractices on the Measurement of Ability in Nigeria. International Journal of Social Sciences and Education*, 2(4), 748-75

Ementa, N.C., & Onokpaunu, M.O. (2019). Appraisal of business education students' performance trends in computer related courses: implications for lecturers' instructional design**.** *Nigerian Journal of Business Education, 6*(1), 397 – 405

Ezenwafor, J. I. (2012). Adequacy of exposure to information and communication technology by graduating business education students of tertiary institution in Anambra State. *Business Education Journal*, *8*(2), 45-60

Fehintola, J.O. (2018). Assessment of challenges of CBT among students in Nigerian educationalsystem.*Kampala International UniversityJournal of Social Sciences, 4*(2), 141–149

Friedrich, T. (2008). *Towards a research agenda on computer-based assessment: Challenges and needs for European educational measurement*. Luxembourg City: Office for Offical Publications of the European Communities

Igbinoba, M.O. (2008). Job competencies expected of NCE secretarial education graduates by employers of labour: Implications on business education in *ABEN Book of Readings, 1*(8), 142 – 152

Khaleel, I. (2017). *Personal Communication with CBT Project Personnel*. Department of Library and Information Science, Ahmadu Bello University, Zaria

Kuzmina, I.P. (2010). Computer-based testing: Advantages and disadvantages. ВІСНИК НТУУ ―КПІ‖. *Філософія. Психологія. Педагогіка. Випуск 1,*192-196.

Nkwocha, P.C., Akanwa, U.N., & Nkwocha, N.C. (2015). Challenges Encountered Using Cbt By 2015 UTME Candidates In Owerri Zone One, Nigeria. Test validity implications. *Journal of Research & Method in Education, 5*(1), 28-35.

Obioma, G., Junaidu, I., & Ajagun, G. (2013).The Automation of EducationalAssessment in Nigeria: Challenges andImplications for Pre-service TeacherEducation. A paper presented at the 39thAnnual Conference of the InternationalAssociation for Educational Assessment(IAEA), Tel-Aviv, Israel, from 20th –25thOctober

Oborah, J.O. (2011). *Basic ICT skills and keyboarding for office technology and management*. Lagos: Adura Publishers

Ohakwe, S.N., & Njoku, S.C. (2008). Curriculum standards, business environment and national development: tripartite issues in office education. Being paper presented at the 20thnational conference of Association of Business Educators of Nigeria held in Federal Polytechnic, Nasarawa, Nasarrawa State, from 14th–18thOctober

Rostaminezhad, M.A. (2018). To interact or not to interact: Why students print interactive instructional multi-media? Problem of reading or reviewing? *Asia-Pacific Journal of Information Technology and Multimedia, 7*(1), 19-28

Sadiq, F.I., & Onianwa C. U. (2011). Towards a scalable web assessment system for post university matriculation examination inNigeria. *African Journal of Computer & ICTs, 4*(2),25-30

Sanni, A. A., & Mohammad, M. F., (2015). Computer based testing (CBT): An assessment of student perception of JAMB UTME in Nigeria. *Computing, Information Systems, Development Informatics& Allied Research Journal*, *6*(*2)*, 13-28

Udo, M. P. (2008). *Principles and methods in business education*. Jos: Calvary Press.

Udo, M.P., & Bako, D.H. (2014). Acquiring maximum vocational business education skills and competencies for sustainable development in Nigeria. *Journal of Educational and Social Research, 4*(7), 53-60

Application of Marketing Strategies to Library and Information Services in Public Universities in South-East Nigeria

By

Anaehobi, E. S.

and

Odume, Chinonso Stella

Abstract: *This study determined the application of marketing strategies to library and information services in public universities in South-East Nigeria. Two research questions guided the study and two null hypotheses were tested. A descriptive survey research design was adopted for the study. The target population comprised 301 (124 librarians and 177 library officers) in public universities in South-East, Nigeria. A simple size of 200 (86 librarians and 114 library officers) were drawn using simple random sampling technique A structured questionnaire containing 23 items used for data collection. The questionnaire was face validated by three experts in the field of Library and Information Science and measurement and evaluation. Trial test was used to establish the internal consistency of the instrument and data analysis using Cronbach alpha yielded correlation coefficients of 0.85 and 0.79 for the two clusters (B1 to B2) with an overall coefficient of 0.82 obtained. One hundred and ninety three (193) duly completed copies of the questionnaire were retrieved and used for data analysis. Mean and standard deviation was used to answer the research questions and to determine the homogeneity of the respondents' ratings respectively while the t-test was used to test the hypotheses at 0.05 level of significance. The analysis was carried out using Special Package for Social sciences (SPSS) version 23.0. Some of the findings revealed that. Librarians and library officers in public universities in South-East Nigeria agree that they applied majority of the items listed on product marketing strategy. However, they disagree that most of the items on place as a marketing strategy are applied in marketing library and information services. Furthermore, ownership of university significantly influenced respondents' mean ratings on the application of product marketing strategy to library and information services while it was a significant factor on application of pricing marketing strategy in this regard.*

Keywords: Marketing strategies, Library and Information Services, Public Universities

Introduction

Libraries are recognized as essential instrument for societal and national development and scholarship. Libraries are vital to education as they help in fostering literacy and learning (Dibu, 2012). They also ensure the acquisition and dissemination of information to users as academic libraries serve specific kinds of users in any academic environment be it public or state universities. Public university is a university mainly funded by public means through a national or sub-national government, as opposed to private universities (Martin in Eze, 2016). Public in this sense indicates that the university is funded partly from state taxpayers as against private universities which are funded by the owners. In Nigeria, public universities can be established by both the Federal Government and by State Governments. Public universities generally rely on subsidies from their respective state government.

Academic libraries are very important components of public universities. Academic libraries refer to all libraries existing in higher institutions such as universities, polytechnics, college of education, monotechnics like school of nursing, petroleum training institutes and schools of health technology. They are the heart of the learning community, providing a place

for students, research scholars, teachers and faculty members for teaching, learning and research. The major aim of academic libraries according to Uwaifo (2010) is to provide the educational needs of the students as well as supporting the teaching staff in the up-to-date materials required for teaching. Academic libraries are faced with the need to market their services to users, as the main focus of every library is good customer service. This is to enable users have access to verities of quality library services to meet their information and learning needs. Good service can equal a good marketing campaign, which is another reason why marketing is important for libraries.

Marketing of library and information services involves creating awareness of the library's' existing and new information and services to library users. According to Chegwe and Anaehobi (2015), marketing of library and information services involves activities such as identifying user's needs, designing suitable services or product to meet their needs, communication and distribution to inform, motivate and serve the users. The major aim of marketing of library and information services is to identify current and potential users and begin to develop a relationship with them. Academic libraries can achieve such relationship with their users through the application of marketing strategies in rendering library services.

Marketing strategy is a well structured plan that highlights the organization's goals and quest and the specific processes of achieving those set of goals. Chegwe and Anaehobi (2015) defined marketing strategies as processes that allow an organization to concentrate its sources on the optimal opportunities with the goal of increasing patronage and achieving a sustainable competitive advantage. Gupta and Savard (2011) asserted that marketing strategies encompasses such components as evaluating the needs of the customers, planning the various elements of the mix to answer those needs, involving the entire organisation not only marketing department and evaluating the results. Fundamentally marketing strategies involve, understanding the clients which is called market research, identifying the clients' market that is market segmentation and targeting, identifying organizations' strengths as a competitive business, knowing the products the clients want and where they want it (product and place in marketing mix) and developing effective and efficient procedure (process) (Jose & Bhat, 2007). Marketing strategies in this study are actions or plans adopted by librarians in providing library and information services to public universities.

The need for marketing of library and information services according to Jose and Bhat (2007), are to focus on the customer, improve the image of the library, build relationship with the corporate world and cost recovery. Therefore, effective marketing strategy takes information services to the customer and it comprises market segmentation, market research, and marketing mix (Nooshinfard & Ziaei, 2011).

Marketing mix refers to a set of variables that can be used by a library to promote its services and resources to users (Zhixian, 2016). As the need for promotion of library services has grown and is now more widely recognized, the marketing mix has been refined and adapted to include services, not just products (Mollel, 2013). Marketing mix also referred to as the 4 Ps: price, product, promotion and place was introduced by McCarthy in 1978, however the fifth P, people, is now commonly included. These types of marketing mix can be utilized for marketing of library and information services in universities.

Product is anything that can be offered to a market to satisfy a consumer or customers' need (Madhusudhan, 2008). In the context of library and information services, product refers to the services that are offered to the library users which include online access to databases, e-journals, inter-library loan. Adegoke (2015) stated that products in librarianship refer to services

or general reference and information services offered by the library. Adogoke posited that product marketing strategy can be applied by academic libraries for effective marketing of their information services. Bamigbola (2013) on the other hand noted that library products are its various information services rendered to the users, which library designs putting into consideration the users' needs that is to say, library information services are customer-focused. Library and information services are varied, and include; reference services, referral services, circulation services, traditional dissemination of information, electronic services, interlibrary loan, selective dissemination of information (SDI), reprographic services, bibliographic information, abstract and summaries of information (Mishra, 2010).

Pricing in the library context is usually that of time and effort the user spends in travelling to the library as well as the time and effort spent in searching for and examining library resources and cost of a forgone alternative the products offered (Adegoke, 2015). Price is important in marketing in the world of information as it is elsewhere. Kotler and Armstrong (2010) stated that price is usually expressed in currency. In the library, price can be used to express the value of information services: such as CD-Rom or a fee of a service or membership. For example, tertiary institutions charge different price as library membership fee for all fresh students ranging from ₦50 to ₦200. Similarly, a reasonable amount of income comes from photocopying services, fines charged on overdue books, fees charged on space allocation, printing and scanning services. However, the information the reference librarian explains to the customer at the information desk is an intangible service, which is for free for customers, but produces costs for the library.

Libraries and information professionals must learn to effectively apply marketing strategies in their services because libraries depend on the supports of people they serve for their survival. A library should therefore communicate and work with its customers and funding authorities to provide information about what the library is doing and to enable the library to learn about the community it serve (Adekunmisi, 2013). This can be achieved by application of product and pricing marketing strategies in information and service delivery. Therefore, there is need to determine the application of marketing strategies to the library and information services in public university libraries in South-East Nigeria.

Statement of the Problem

Globally, technology has endowed information seekers with varied options to satisfy their information needs. As a result, libraries no longer have the traditional monopoly of being the only information providers. New technology has confronted librarians and information professionals with a huge challenge to survive and thrive in this digital age, where user community can access online information resources at any time and place. Thus, academic libraries need to be marketed more than ever before by redesigning their services to cope with this era of information technology. Similarly, academic libraries must change from the traditional to digital method of marketing their information and services to users.

A situation where the library users do not know the resources and services available and do not ask for assistance in the use of the library, they may abandon the library and as such, miss out on the information that could have made them better scholars. This will consequently result to the underutilization of academic libraries in universities. While a number of studies had been carried out on marketing of library and information services in Nigeria, no recent study known to the researcher has investigated the application of marketing strategies to library and

information services in academic libraries of public universities in South-East Nigeria. The researcher therefore, felt it necessary to determine the application of marketing strategies to library and information services in public university libraries in South-east Nigeria.

Purpose of the Study

The purpose of this study was to determine the application of marketing strategies to library and information services in public universities in South-east Nigeria. Specifically, the study will determine:

1. The application of product marketing strategy to library and information services in public university libraries in South-East, Nigeria.
2. The application of pricing marketing strategy to library and information services in public university libraries in South-East, Nigeria.

Research Questions

The following research questions guided this study:

1. What product marketing strategy is applied to library and information services in public university libraries in South-East, Nigeria?
2. What pricing marketing strategy is applied to library and information services in public university libraries in South-East, Nigeria?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. Federal and state public university libraries in South-East, Nigeria do not differ significantly in their mean ratings on the application of product marketing strategy to library and information services.
2. Federal and state public university libraries in South-East, Nigeria do not differ significantly in their mean ratings on the application of pricing product marketing strategy to library and information services.

Review of Related Literature

Types of Library and Information Services

University libraries are established to provide information resources and services in order to support the purpose of the university. University libraries are divided into different sections, some of these sections are directly involved in the marketing and promotion of library products and services; examples are the circulation, reference, information and communication technology (ICT), audio-visual units, and serials (Odine, 2011). Westwood (2011) identified the following library and information services that are peculiar to most university libraries. They are lending services, inter-library loan and document delivery service, reservation service, provision of seating and study facilities, reference service, exhibitions and displays, library publications, user education, selective dissemination of information, referral service, translation service, abstracting and indexing services, consultancy services.

Similarly, Patel (2015) enumerated library and information services university libraries provide to satisfy different information requirements of users as follows: Current Awareness Service **(CAS),** Selective Dissemination of Information (SDI) Service**, literature search service, Document Delivery Service (DDS), translation service,** Web-OPAC **Service, article indexing service,** modern automation packages also provide facility to create and index database of articles or papers, **lending service,** Union Catalogue **and ILL Service, electronic document delivery service,** outreach services, **ICT base library services, reprography services. Additionally,** Ntui and Utuk (2008) listed services include assistance given to patrons at the point of use, bindery services, selective dissemination of information (SDI), clippings, compilation of bibliographies, short term loans, referral services, indexing and abstracting. Printed information services in academic libraries are provided manually using resources held in the library or with cooperating libraries (Mohammed, 2015).

Application of Product Marketing Strategy to Library and Information Services

Product is an important factor in marketing strategy and without it no organisation can exist. According to Bamigbola (2013), product is anything that can be offered to a market to satisfy a need. Bamigbola gave example of marketable products as, physical goods, services, places, ideas, and others. According to Oyemike, Udo-Anyanwu and Onuoha (2016), library and information products includes: books, periodicals, reports, electronic document, inter-library loan reference services, international databases, online database, offline databases, home delivery services for books, translated basic information packages foreign library users, internet services, audio visual, television, video camera, compact disk, television set, abstracting & indexing services, reprographic services, display and exhibition, current awareness services, and selective dissemination of information.

A library offers goods, either tangible (books and internet access) or intangible (personal assistance, or value of the library as a premier community institution). Weingand (2010) asserted that, the library's product can be arranged within a three dimensional structure of the product mix, product line, and product item. Programmes of the library are a product line where product items consist of bibliographic instruction, displays, and lectures. Similarly, Olorunfemi and Ipadeola (2018) stated that product in library content is defined as services offered to users to satisfy their information needs. The main products provided by information professionals are: giving user assistance, serving as middle men between the users and the resources of the library which include information skills programs, selective dissemination of information, user education services, photocopy services, bibliographical services, cataloguing services, reference services, photocopying services, current awareness services and internet/computer services.

Application of Pricing Marketing Strategy to Library and Information Services

Price can be defined as cost to produce a product or service (Garusing, 2012). Various techniques and factors are involved in pricing the information products and services which can vary from segment to segment. Determining the actual costs involved in any new product or service is the first step in pricing the service. The cost of the products or services can be calculated as the sum of staff costs, facilities cost, packaging cost, distribution cost, promotion cost, equipment cost, and other cost. The pricing policy of the university libraries may be based on the user's willingness to pay for information products and services (Kumar, 2013).

The price of information services is the seemingly difficult one in library and information services marketing mix. Dhiman and Sharma (2009) term it as a flexible and dominant element that determines the revenue and profitability of the organisation. Traditionally, people feel it is repulsive to pay for library services but in recent years there have been studies supporting, canvassing and embracing the fee-pay information services (Bamigbola, 2013). Bamigbola averred that information professionals also are of mixed and split response to the issue of pricing of information services. Montgomery and King (2012) stated that reasonable amount of income from space allocation, supplies and services, photocopying services, membership ID card, fines charged on overdue books, printing and scanning services. In support of this fact, Kumar (2013) pointed out that library services have long been considered as free services that have affected the quality of services. This has forced authorities to think of extracting at least a fraction of the cost from the users. Indirectly, the efforts were to enhance the membership fee, annual subscription charges, temporary membership charges and overdue charges. Kumar (2013) posited that most university libraries charge tokens for membership deposit, annual Subscription fee, duplicate borrowers ticket, /ID card, overdue charges, photocopying charge, printout charges, and Internet charges.

Users especially at the university level view the library as an agency which offer services free of charge. Though, the library is not profit oriented, the reality of today's world in terms of cost of acquisitions and services makes it inevitable for the library to charge users for services rendered. However, the amount to be charged should be minimal and for certain specialized services only. Such services may include: Registration, selective dissemination of information, use of the library's internet facilities, specialized abstracting and indexing services for individual user. University libraries may also charge fees for overdue loans and final year students' clearance. It is important to note that funds generated from such charges will help to provide better facilities and services for users.

Methods

Descriptive survey design was adopted by this study. This study was carried out in South-East Nigeria consisting of Anambra, Enugu, Ebonyi, Imo and Abia States. The population of the study comprised 301 (124 librarians and 177 library officers) in public universities in South-East, Nigeria comprising five federal and five state universities. A simple size of 200 (86 librarians and 114 library officers) was used for this study. The sample size was selected using simple random sampling technique by balloting. The instrument for data collection was a structured questionnaire titled "Application of Marketing Strategies to Library and Information Services (AMSLIS). The questionnaire contains 31 items in two sections, A and B. Section A contains item on the demographic information of the respondents such ownership of university while section B is divided into two clusters of B_1 to B_4 structured on a four point rating scale of; Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2 and Strongly Disagree (SD) = 1.

Face validity of the instrument was established using three experts. Two experts from the Department of Library and Information Science and one in the Department of Educational Foundations (Measurement and Evaluation Unit) of the Faculty of Education, Nnamdi Azikiwe University, Awka. The reliability of the instrument was established using trial-testing and calculation using Cronbach Alpha formula yielded coefficient values of 0.85 and 0.79 for clusters B_1 to B_2 respectively and overall value of 0.82 obtained. Mean and standard deviation

were used to answer the research questions and determine the spread of the respondents' responses to the mean while independent t-test was used to test the hypotheses at 0.05 level of significance. The decision rule is that a hypothesis was accepted where the p-value is greater than the level of significance otherwise; the null hypothesis was accepted. The analysis was carried out using SPSS version 23.0.

Results

What product marketing strategy is applied to library and information services in public university libraries in South-East, Nigeria?

Table 1: Respondents' mean ratings on application of product marketing strategy to library and information services
(n = 93)

S/N	Product marketing strategies	$\overline{X}$	SD	Remarks
1	My library provides lending services to users	3.67	0.54	Strongly Agree
2	My library offer inter-library loan and document delivery services for users	2.91	0.91	Agree
3	My library provide reservation services to users	3.27	0.68	Agree
4	My library provides seating and study facilities for users	3.75	0.44	Strongly Agree
5	My library carry out reference service functions to users	3.75	0.46	Strongly Agree
6	My library carry out exhibitions and displays to get user attention	3.16	0.76	Agree
7	My library carry out library publications	3.22	0.76	Agree
8	My library carry out user education to users	3.33	0.68	Agree
9	My library perform selective dissemination of information to users	3.20	0.76	Agree
10	My library offer referral services to users	3.22	0.69	Agree
11	My library carry out translation services for users	2.67	0.99	Agree
12	My library provide abstracting and indexing services to users	3.05	0.83	Agree
13	My library carry out consultancy services	3.04	0.84	Agree
14	My library perform union catalogue and ILL Services	2.87	0.88	Agree
15	My library offer reprography Services	3.04	0.87	Agree
16	My library carry out online/offline access to digital information resources	3.42	0.66	Agree
17	My library carry out database searching for users	3.28	0.78	Agree
18	My library carry out online circulation activities such as electronic reserve and e-publishing	2.92	0.89	Agree
19	My library offer information literacy programmes for users	3.11	0.80	Agree
20	My library provides user services and queries and online access to library catalogue	3.05	0.84	Agree
	Grand Mean	**2.86**		**Agree**

Data in table 1 reveal that out of the 20 product marketing strategy listed, respondents strongly agreed that items 1, 4 and 5 are applied to library and information services with mean ratings ranging from 3.67 to 3.75 while respondents agree that the remaining 17 items (items 2, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20) with mean scores ranging from 2.67 to 3.42 are applied to library and information services. The grand mean of 2.86 means that librarians and library officers agree that product marketing strategy are applied to library and information services in public university libraries in South-East, Nigeria. The standard

deviations for all the items are within the same range which shows that the respondents are homogeneous in their opinions.

Research Question 2

What pricing marketing strategy is applied to library and information services in public university libraries in South-East, Nigeria?

Table 2: Respondents' mean ratings on application of pricing marketing strategy to library and information services
(n = 93)

S/N	Pricing marketing strategies	$\overline{X}$	SD	Remarks
21	My library collect charges on space allocation	2.01	0.85	Disagree
22	My library collect charges on supplies and services	2.00	0.93	Disagree
23	My library collect photocopying service charges from the users	2.59	0.96	Agree
24	My library issue membership ID card to users	3.10	0.93	Agree
25	My library places fine on overdue books	3.00	0.83	Agree
26	My library collect printing and scanning service charges from the users	2.55	0.97	Agree
27	My library collects membership fee from the users	2.35	0.99	Disagree
28	My library collects annual subscription charges	2.31	0.90	Disagree
29	My library collect temporary membership charges	1.57	0.80	Disagree
30	My library collect internet charges	2.10	0.93	Disagree
31	My library collect final year students' clearance charges	2.50	0.77	Agree
	Grand Mean	**2.37**		**Disagree**

Data in table 2 show that out of the 11 pricing marketing strategy listed, respondents agree that items 23, 24, 25, 26 and 31 are applied to library and information services with mean ratings ranging from 2.50 to 3.10 while they disagree that the remaining six items (items 21, 22, 27, 28, 29 and 30) with mean scores ranging from 2.00 to 2.35 are applied to library and information services. The grand mean of 2.37 means that librarians and library officers disagree that pricing marketing strategy are applied to library and information services in public university libraries in South-East, Nigeria. The standard deviations for all the items are within the same range which shows that the respondents are homogeneous in their opinions.

Hypothesis 1

Federal and state public university libraries in South-East, Nigeria do not differ significantly in their mean ratings on the application of product marketing strategy to library and information services.

Table 3: Summary of t-test analysis of mean ratings of federal and state public university libraries on application of product marketing strategy to library and information services

Ownership of university	N	$\overline{X}$	SD	df	t-value	P-value	Decision

Federal	133	3.29	0.82				
				191	2.95	0.04	Significant
State	60	3.07	0.93				

Table 3 shows that the t - value of 2.95 with p-value of 0.04 is less than the level of significance of 0.05 (0.04 < 0.05) at 191 degree of freedom. This means that federal and state public university libraries in South-East, Nigeria differ significantly in their mean ratings on the application of product marketing strategy to library and information services. Therefore, the null hypothesis was rejected.

Hypothesis 2

Federal and state public university libraries in South-East, Nigeria do not differ significantly in their mean ratings on the application of pricing product marketing strategy to library and information services.

Table 4: Summary of t-test analysis of mean ratings of federal and state public university libraries on application of pricing marketing strategy to library and information services

Ownership of university	N	$\overline{X}$	SD	df	t-value	P-value	Decision
Federal	133	2.56	0.76				
				191	1.84	0.12	Not Significant
State	60	2.30	0.74				

Table 4 shows that the t - value of 1.84 with p-value of 0.12 is greater than the level of significance of 0.05 (0.12 > 0.05) at 191 degree of freedom. This means that federal and state public university libraries in South-East, Nigeria do not differ significantly in their mean ratings on the application of pricing marketing strategy to library and information services. Therefore, the null hypothesis was accepted.

Discussion of Findings

Findings of the study showed that librarians and library officers agree that product marketing strategy is applied to library and information services in public university libraries in South-East, Nigeria. The study showed that items such as providing lending services to users, providing seating and study facilities to users, carrying out reference service functions to users among others are applied by librarians and library officers in public university libraries in South-East, Nigeria. The findings of this study agrees with that of Kutu and Olabode (2018) which revealed that the academic libraries market their products and services such as lending of materials, user education, school services, and referral services. Kutu and Olabode posited that librarians highly apply product marketing strategy to library and information services.

The fact that librarians in both federal and state universities in the area of the study agree that they applied product marketing strategy to library and information services could be as a result of having undergone training and retraining programmes through conferences, workshops and seminars which have exposed them on how to apply product marketing strategy to library

and information services. It could also be due to their aware of the benefits of applying product marketing strategy to library and information services. In agreement, Madhusudhan (2008) asserted that products is the most important factor in marketing, products which provide benefits for users and which answer users' most important needs are the core business of the library and information service. Therefore, without products, no academic library has reason to exist, there is no task to perform; hence, product is the most important factor of marketing strategies. The findings in hypothesis one revealed that Federal and state public university libraries in South-East, Nigeria differ significantly in their mean ratings on the application of product marketing strategy to library and information services. The findings of this study disagree with that of Odine (2011) which revealed that public university libraries apply mainly product marketing services such as lending services, seating, inter-library loan and document delivery services for users, reprographic services and study facilities and reference services.

Findings of the study revealed that librarians and library officers disagree that they collect charges on space allocation, collect charges on supplies and services, collect annual subscription charges, collect temporary membership charges, collect membership fees from the users and collect internet charges. However, library staff agree that they collect photocopying service charges from the users, issue membership ID card to users, place fine on overdue books, collect printing and scanning service charges as well as collect final year students' clearance charges. The findings of this study concur with that of Bamigbola (2013) which revealed that all the library and information services are free except the use of facilities like e-classroom for seminar, loan of laptop, printing of documents, photocopying of documents and scanning of documents that are paid for. Bamigbola stated that though people feel it is repulsive to pay for library and information services, but in recent years there have been studies supporting, canvassing and embracing payment of small amount of money for library and information services. Similarly, Kumar (2013) posited that most public university libraries charge tokens for membership deposit, annual Subscription fee, duplicate borrowers ticket, /ID card, overdue charges, photocopying charge, printout charges, and Internet charges.

The fact that library staff agree that they charge fixed price for some library products and services could be to cover expenses that relate to the library's total operations, or to acquire new library equipment and maintain existing ones considering dwindling government funding to public university libraries in Nigeria. This assertion was confirmed by Nazifa (2019) who noted that the essence of university library is to meet the information needs of students, lecturers and other non-teaching staff for free, however, in the course of providing these library and information services, university libraries charge small fixed amount of money to cover their operational costs. Additionally, Goodluck, Oyeronke, Ilogho, Asaolu and Michael-Onuoha (2016) reported that users especially at the university level view the library as an agency which offer library and information services free of charge. The findings of the study also revealed that federal and state public university libraries in South-East, Nigeria do not differ significantly in their mean ratings on the application of pricing marketing strategy to library and information services. This finding could be as a result of the fact that both federal and state public university libraries charge some small price to cover operational cost. In agreement, Nwegbu (2010) revealed that public universities in south-east Nigeria charge fixed price to cover overall operational cost.

Conclusion

The findings of the study disclosed that librarians and library officers agree that they apply majority of the items listed under product marketing strategy, there are still some items on these strategies which the respondents disagree that they are applying. Similarly, respondents disagree that they applied majority of the items listed on pricing marketing strategy to library and information services. Based on these findings, the researcher concludes that a lot still need to be done by librarians and library officers to increase the application of product and pricing marketing strategies to library and information services in order to attract and retain users.

Recommendations

Based on the finding of the study, the following recommendations are made:

1. Library management in public universities should expose librarians and library officers to marketing library services through regular trainings, conferences, seminars, workshop and symposiums. This will enable them to up-date their skills in the application of product and pricing marketing strategies to library and information services.
2. Government at federal and state levels should provide library resources that are needed for effective marketing of library and information services in public universities.
3. Marketing courses should be introduced in university education library's curriculum and should be made compulsory for library students. This will expose them to effective application of product and pricing strategies to library and information services when employed after graduation.

References

Adegoke, K. A. (2015). Marketing of library and information services in university libraries: A case study of Usmanu Danfodiyo university library, Sokoto-Nigeria. *Intel Prop Rights, 3*, 143. doi:10.4172/2375-4516.1000143

Adekunmisi, S. R. (2013). Strategies for marketing library services and information products in Nigeria. *Global Advanced Research Journal of Educational Research and Review, 2*(12), 240- 245.

Bamigbola, A. A. (2013). Application of marketing strategies and mix to Digital Information Services (DIS): Nigerian university libraries Perspectives. *Library Philosophy and Practice (e-journal)*, 961. Retrieved from: http://digitalcommons.unl.edu/libphilprac/961

Chegwe, A. O. & Anaehobi, S. E. (2015). Academic librarians perception and attitude towards marketing of library services in Delta State, Nigeria. Library Philosophy and Practice (E-Journal). Retrieved from http://digitalcommons.unl.edu/libphilprac/1282

Dhima, A. K. & Sharma, H. (2009). Services marketing mix in library and information centres" ICAL-Advocacy and Marketing. Retrieved from: http://crl.du.ac.in/ical09/papers/index_files/ical-78_246_697_1_RV.pdf(Accessed12 September, 2011)

Dibu, O. (2012). Eroding the university culture. A paper delivered at the Federal University of Technology, Akure. Ifidon E.I. (2005) Fee-Based Service. *Communicate Journal of Library and Information Science, 1*(1&2), 41.

Garusing, A. J. J. (2012). Development of lifelong learning through libraries-use of the web pages as a marketing channel in university libraries of Sri Lanka. In National Conference on Library and Information Sciences, *6*, 8-9.

Goodluck, I., Oyeronke, A., Ilogho, J., Asaolu, A., Michael-Onuoha, H. H. (2016). Nigerian university libraries and the question of marketing: reconciling the salient issues. *Information Impact: Journal of Information and Knowledge Management, 7*(1), 102–114.

Gupta, D. K. & Savard, R. (2010). Marketing library and information services". Encyclopedia of Library and Information Science. 3rd Edn.

Kotler, P. & Armstrong, G. (2010). *Principles of marketing, (13th ed.).* New Jersey Pearson Prentice Hall.

Kumar, P. K. S. (2013). Marketing strategies for the university libraries in Kerala. DESIDOC *Journal of Library & Information Technology, 33*(5), 399-404.

Kutu, J. O. & Olabode, O. (2018). Marketing of information products and services in public libraries in South West, Nigeria. *International Journal of Library and Information Science, 10*(6), 54-61.

Kotler, P. & Armstrong, G. (2010). *Principles of marketing, (13th ed.).* New Jersey Pearson Prentice Hall.

Kumar, P. K. S. (2013). Marketing strategies for the university libraries in Kerala. DESIDOC *Journal of Library & Information Technology, 33*(5), 399-404.

Kutu, J. O. & Olabode, O. (2018). Marketing of information products and services in public libraries in South West, Nigeria. *International Journal of Library and Information Science, 10*(6), 54-61.

Montgomery, C. H. & King, D. W. (2012). Comparing library and user related costs of print and electronic journal collections. *D-Lib Magazine, 8*(10), 23-29.

Nazifa, B. Y. (2019). *Marketing strategies used for promotion of library information services in Kaduna State Public Library, Nigeria*. (Published masters degree thesis), School of Education, Kenyatta University.

Nooshinfard, F. & Ziaei. (2011). Academic library websites as marketing tools". Library Philosophy and Practice. Retrieved from: http://unllib.unl.edu/LPP/ (Accessed 27 October, 2011).

Ntui, A.I. & Utuk, S.G. (2008). Information resources and services in libraries. In Lawal O. Nkereuwem E. & Edem, M, Calabar: Glad Tidings press Ltd.

Nwegbu, M.U. (2010). *Strategies for marketing library services in Universities in South- East Nigeria.* (Unpublished PhD Thesis), Dept. of Library and Information Science. University of Nigeria Nsukka.

Odine, R. T. (2011). *Marketing library and information services in academic libraries in Niger State. (Published masters degree thesis), D*epartment of Library and Information, University of Nigeria Nsukka.

Olorunfemi, M. & Ipadeola, D. A. (2018). Marketing library and information services In selected university libraries in South West Nigeria. *Library Philosophy and Practice (e-journal)*. Retrieved from: http://digitalcommons.unl.edu/libphilprac/1975

Oyemike V. B., Udo-Anyanwu, A. J. & Onuoha, C. O. (2016). Strategies Used in Marketing Library and Information Services in Tertiary Institutions in Imo State. *Journal of Applied Information Science and Technology, 9*(1), 144-152.

Patel, B. K. D. (2015). A study of library and information services for agriculture universities researcher of Gujarat state.

Uwaifo, V. O. (2010). Attaining standards in technology education in Nigeria universities through effective utilization of physical facilities. *International NGO Journal, 4*(4), 146-159.

Weingand, D. (2010). Preparing for the new millennium: The case for using marketing strategies. *Library Trends, 48*(3), 295 -316.

Westwood, R. (2011). A Case for quite libraries, Retrieved April 11th, 2011 from: http.www.robwestwood.com.uk.

Zhixian, Y. (2016). Effective techniques for the promotion of library services and resources. *iRinformation Research, 21*(1), 3-19.

Accounting Ethics and Quality of Financial Reporting

Stanley OGOUN
and
Felicia Adjerhore EPHIBAYERIN,

Abstract: *In this paper, the effects of accounting ethics on financial reporting quality in Nigeria were investigated. The descriptive survey research design which seek to elicit objective opinion of respondents on accounting ethics and financial reporting quality was used. The population of the study captured twenty-eight (28) consumer goods sector firms listed on the Nigeria stock exchange market as at 31st December, 2018, while a sample of fifteen (15) of these firms was selected based on the simple random sampling technique. In pursuance of a reliable and dependable data needed for the study, 75 well-structured questionnaires were used as the major instrument to gather data from respondents in the accounting departments of the selected companies. The gathered data were analysed using the OLS statistical package. The result revealed that ethics had a positive and significant link with financial reporting quality. Consequently, high ethical standard is vital in achieving objective, reliable and transparent financial reports. The study recommends that in all instances where accounting service is provided, accountants must ensure high ethical standards to remain relevant and to satisfy the decision usefulness objective of accounting practice. Furthermore, Nigerian firms should put in place ethics and compliance department to direct and monitor ethics implementation in their day-to-day operations.*

Keywords: Accounting Ethics, Ethical Standards, Financial Reporting Quality, JEL Classification: M41; M49

Introduction

The rectitude of the accounting profession is being queried due to the collapse of some companies and a rise in detectable fraudulent acts in recent times. The effectiveness in incorporated systems of governance has been probed by international bodies such as Enron, Bank of Credit, WorldCom, Commerce International, Global Crossing, Cadbury, Parmalat, and Polly Peck. (Zeghal & Mhedhbi, 2016). Consequently, the United States Congress passed the Sarbanes-Oxley (SOX) Act in 2002 and also constituted the Public Company Accounting Oversight Board (PCAOB), both of which supported renewed pressure for accountants to have ethics education to improve the chances that practicing accountants make ethical decisions when faced with challenging choices. Therefore, in order to curb unethical choices with their attendant multiplier effects, often manifested in the quality of financial reporting, the set of codes of ethical professional conducts attracted further scrutiny and strengthening. The main purpose of these codes is to provide members of the profession with procedures for directing themselves in a manner that is in alignment with the responsibilities of the profession directed at meeting stakeholders' expectations.

Ogbonna (2010) opined that any organisation that lacks ethical consideration may not last for a long time to achieve its desired goals and objectives and that of its stakeholders. These failures of corporate entities have been attributed to accountants' not complying with these codes of conduct, demonstrated not only in the contents of published financial statements, but

also in its reliability by its end users. Hence, proper care has to be taken on how these financial statements are prepared and presented. Aguolu (2006) asserts that these failures have brought greater examination of the work of the accountant from both within and outside the profession. In recent times, diverse ethical matters have been debated varying from insider's dealings, conflict of interests, acceptance of gifts, objectivity, among others. Scholars are of the view that all these ethical matters affect financial statements quality.

The code of corporate governance (2011) offered the composition of an ethics committee in an organisation where the ethics committee is accountable for deliberating on ethical issues, as well as upholding ethical standards in the organisation. But unfortunately the desired anticipated outcome is yet to be achieved, as some of the unethical behaviours over the past decagon have been tracked down to crossing ethical fault lines, where in most cases management and auditors ditched decency for personal and selfish gain to the impairment of the organisation. Thus, the lacuna between theory and practice has necessitated the analytical appraisal of ethics in organisations and their effect on financial reporting quality.

Furthermore, gaps in earlier studies (by Rest and Narvaez, 1994; Abdol Mohammadi and Reeves, 2000; Peterson, Rhoads, & Vaught, 2001; Haas, 2005; Ryan, 2005; Dellaportas, 2006; Harris, Feder, & Taman-Maitis, 2006; Alleyne, Devonish, Nurse, & Cadogan-McClean, 2006; Ajibolade, 2008; Luftig and Quellete, 2009; Sanusi, 2010; Ogbonna and Appah 2012; Enofe, Utomwen & Ganjuma, 2014) have triggered further studies all over the world. The current study is premised on the need to cross-examine the concept along business type, as well as the need to build up domestic research in the field, using the consumer goods industrial sector, which is one of the most indispensable sectors of the Nigerian economy. This paper thus aims to explore the effect of accounting ethics on financial reporting quality of consumer goods sector in Nigeria.

Review of Related Literature

Conceptual Framework

- Accounting Ethics

The Oxford Advance Learners Dictionary defined ethics as the moral principles that control or influence a person's behaviour. This re-affirms that ethics is a field of philosophy that deals with principles and moral. It implies as well, that ethics is all about rules governing the manner in which we ascertain what is 'right' or 'wrong', 'good' or 'bad'. Besides, ethics can be viewed as a moral concern or standard of conduct as it pertains good, right, bad, evil and wrong, with respect to managing situational circumstances that may arise. Ethics is the standard by which we judge character and action; and intention to advance at a fair choice or decision. Ethics denotes a set of values, rules of conduct and moral principles. Ethics relates to a situation where an individual has to make a decision from diverse alternatives regarding moral principles (Harris, Feder & Tamar-Mattis, 2006).

Aguolu (2006) states that ethics are a body of rules, principles, properties and morals of personal conduct and unwritten regulations governing the actions of an individual or a group of individuals or a community in their dealings with one another or as it relates to other individuals with whom they may have business or other social connections. As a matter of fact, ethical behaviour is vital for society to function in a well-ordered manner. The need for ethics in

society is so vital that many commonly held ethical principles of a society such as honesty, fidelity and excellent pursuits can be integrated into law. Ethics is an arm of philosophy concerned with the study of what is good and right for people. Its aim is to verify and perpetually analyze how humans should comport themselves so as to live a life of fulfilment; this will necessitate the consideration of others as well as oneself. It is insufficient to dwell on only what one feels is proper. But the effect of one's behaviour on others must also be taken into consideration. This is what ethics champions. The advancement of these noble values is philosophically viewed as being dependent on the distinctiveness of man that enables him find solutions to his environmental challenges. In his search for answers, he developed some standards of morality, consistently adhered to them, and the entire group accepts them.

The philosophical approach to ethics is usually viewed from different perspectives, which are cited as different schools of thought. Each school of thought believes that ethics could be formed on the basis of deontology which is a theory of the study of the nature of obligation where the ethical requirement is grounded on the 'act' and whether it is right or wrong. Deontology emphasized that an act that is immoral (wrong) can lead to something good, such as killing the intruder (homicide is wrong) in order to protect a family (protecting the family is right). On the other hand, teleology is concerned not with the act in itself but with the outcomes of the specific act. Also, teleology refers to as 'end-based-ethics' or consequentialism. Utilitarianism is a unique form of teleology that entails maximizing 'welfare'. Usually, it is loosely described as 'creating the greatest good for the greatest number'; Dilemma which is a circumstance in which all existing courses of actions appear to include morally undesirable as well as morally desirable aspects. In view of the above, ethics may be viewed as a science of conduct, which entails learning the right thing and doing the right thing (Nwanyawu, 2018).

Accounting ethics is a branch of applied ethics that seeks to study moral values and judgements as they apply to the accounting profession. Ethics could take the form of business, professional etc. and relates to certain discipline or profession such as accounting, medicine, management, engineering etc. A professional approach to ethical concerns focus on how each professional or organisational unit tackles the difficulties of ethical requirements. Each professional or organisational unit is comprehended as willing to embrace the notion of providing either a code of ethics/professional code of best practices. Ethics as it relates to business is basically concerned with knowing what is right or wrong and doing the right thing in the workplace. Thus, they are values, principles and policies that serve as operational procedures for individuals and organisations for decision regarding what is morally right and wrong (Nwanyawu, 2018).

The express development of social relationships and human society is complex, and therefore demands the constant flux of fiduciary relationship management that is ethically acceptable. One professional improvement needed in response to these changing conditions evolves in the form of professional codes of conduct and standards. Thus, increasing social demands in array of accounting responsibilities in the compound web of social contracts makes the formation of standard practice and professional conduct expected of the accountant, inevitable. This expounds why accounting services are provided under the administration of a professional association (Saghafi, Rahmani, & Rabie, 2010). For instance, according to principle of AICPA code 3, *members* should admit the responsibility to behave in a way that will serve the public interest, honour the public trust, and exhibit commitment to professionalism. These professional responsibilities in order of priority are responsibility for society, responsibility for client, responsibility for other members of the profession, and

responsibility for self. In other words, professional person should agree that after joining the profession, the interests of society take preference over and above client's and personal interests in the performance of his professional services.

The professional accountant is expected to make available true and accurate view of the performance of an entity even when confronted with conflicting interest involving his personal interest. Such demonstration of professional discipline, which is the hallmark of professional objectivity, no doubt, engenders reliability, continued trust and public confidence in the accounting profession, which should further strengthen the intellectual and practical adherence to the professional code of conduct. More so, it is believed that such professional discipline also augments the anticipated quality of the final products of the accounting profession. Such anticipated qualities as faithful representation of facts, relevance and reliability of facts so presented, understanding ability of facts and timeliness of facts, are improved upon when the public accountant is seen to be so professionally disciplined in conduct.

- ***Importance of Accounting Ethics to Organisation***

The basic purpose of a code of ethical conduct is to provide an organisation with a clear standard for ethical behaviour. Accounting ethics assist in shaping the behaviour of accounting professionals towards meeting stakeholders' expectations. Accounting ethics rightly contribute to profit which is distributed to all stakeholders according to their interest in the entity. Oghene and Yomere (2008) stated that the purpose of ethics in organisation is to ensure business men and women operate within a framework of code of conduct that facilitates, if not encourages public confidence in their product and services. As observed by the International Federation of Accountants (IFAC), the introduction of a code of ethics assists in building a value-driven organisation and typically deals with an organisation's fundamental values, commitment to employees, standards for doing business, and its rapport with the wider society.

Accounting ethics can also be seen to have a constructive impact in the reduction of fraud cases, corruption, theft and mismanagement of fund by employee. The study of Abdol-mohammadi and Reinstein (2012) revealed that though ethical education impacted on the attitudes and behaviour of professional accountants, but yet to confirm if ethics education have potential of moderating Enron-like fraud. An ethically-minded corporate entity invests less in advertising and their products and services are of great demand. Accounting ethics help an organisation to build its integrity and culture on a solid ground. Before an organisation can enjoy the benefits of accounting ethics, it must invest both in organisational asset and human capital development. Heysel (2013) opined that the investments in human capital and organisational asset take the form of both financial resource and time.

Arowoshegbe, Uniamikogbo and Atu (2017) in their study unravelled the impact of ethics on audit quality. They discovered that accounting ethics have a positive and significant relationship with audit quality. Their study also showed that accounting ethics play a vital role in improving the auditor's expertise. Therefore, there is a need to regulate and strictly enforce accounting ethics both by the standard setters and other stakeholders such as the organisations, professional bodies and tertiary institutions. Nwanyanwu (2018) in his own study revealed that good accounting ethics can help in alleviating fraud in Nigerian banks.

- Fundamental Principles of Ethical Standards

Mathews and Perera (1996) said, to sustain social regulation, a profession has to develop rules to govern its members. Generally, these rules are encrypted in a code of ethics which is a guide to members of a professional community in carrying out their professional roles. It is well known that the two major professional accounting bodies in Nigeria, like other similar professional bodies in the globe provide essential principles and procedures for professional accountants. These principles include; integrity, objectivity, professional competence and due care, confidentiality, professional behaviour, technical standards and independence.

First, in terms of integrity, a professional accountant should be conventional and truthful in all professional and business relationships. Jenfa (2000) says a professional accountant has a responsibility to avoid actual or obvious conflict of interest. The professionals should be able to abstain from engaging in any activity that would hamper their ability to perform their duties ethically. According to Osisioma (2000), integrity is the final test of professionalism. It is the state of being whole and united. He noted further that integrity is hostile to the spirit of our age. The predominant philosophy of life that guides our culture circles around a materialistic consumer mind-set. A professional accountant should not be related with reports, returns, communications or other information where they consider that the information contains materially false or misleading statements.

Second, the principle of objectivity enforces on all professional accountants to be just, straightforward and free from conflict of interest and should not give room for any bias or undue influence of others to prevail over their sound professional or business judgment. Jenfa (2000) argued that the professional accountant has the duty to communicate information quantitatively and justly and disclose fully all important facts that could sensibly be expected to influence any user's understanding of the reports, observations and recommendations obtainable. The IFAC code of ethics for professional accountants recognizes that the targets of the accountancy professional is to work to an extreme standards of professionalism, to achieve the apex levels of performance and generally to ensure that public interest requirement is being fulfilled.

Third, a professional accountant has an on-going duty to preserve professional knowledge and skill at the level expected to make sure that customer or employer is given good professional services based on current developments in practice, rules and procedures. Skilled professional services call for the application of sound judgment in applying professional understanding and expertise in the execution of such services. Professional competence may be split into two separate segments of attainment of professional competence, and preservation of professional competence. The preservation of professional competence demands a continuing responsiveness and a knowing of germane technical professional and business development (Osisioma, 2000). Continuing professional developments progress and sustain the abilities that empower a professional accountant to execute competently within the professional environs. A professional accountant should behave meticulously and in line with appropriate methodological and professional standards when performing professional services. Being meticulous encompasses the obligation to behave in line with the demands of a task, prudently, systematically and on a suitable basis. An accountant should also desist from assenting to perform professional services which they are not fit to perform, unless professional counsel and support are gotten where applicable, a professional accountant should ensure clients, employers

or other users of the professional services are aware of the limitations inherent in the services to prevent the misinterpretations of an expression of opinion as an assertion of fact (Ajibolade, 2008).

Fourth, the principle of confidentiality enforces a responsibility on professional accountants to desist from disclosing their client confidential information acquired as a result of professional or business relationships without appropriate and specific authority or except in a case where there is a legal or professional right or duty to do so. And should also refrain from using confidential information obtained as a result of professional duty and business relation for their personal gain or to the advantage of third parties. A professional Accountant should maintain confidentiality even in a social environment. The professional accountant should be alert to the likelihood of unintentional disclosure, specifically in situations involving long relationship with a business associate and a close family member. A professional accountant must maintain confidentiality of information disclosed by a potential client and also consider the need to sustain confidentiality of information of the client. It is his responsibility to take reasonable strides to ensure that employees under his control and persons from whom advice and assistance is obtained respect the professional accountant's duty of confidentiality. The desire to comply with the principle of confidentiality persists even after the end of relationship between a professional accountant and a client (Aguolu, 2006).

In the event where a professional accountant changes employment or acquires a new client, the professional accountant is allowed to use past experiences. The professional accountant must not however, use or disclose any confidential information either gained or received as a result of a professional or business affiliation. However, the following are circumstances where professional accountants are or may be required to disclose confidential information or when such disclosure may be appropriate. And these are situations where disclosure is permitted by law and authorized by the client; when disclosure is obligatory by law e.g. production of document or provision of evidence in court of law or, disclosure to appropriate public authorities of infringements of the law that come to light and, where there is a professional duty or right to disclose (Nzotta, 2008).

- **Financial Reporting Quality**

Financial reporting according to Nzotta (2008) is a dire issue which affects decision making process of diverse stakeholders, corporate bodies, existing and potential investors and policymakers. Glautier and Underdown (2001) asserted that the primary objective of financial reporting is to communicate economic measurement of and information about resources and information about the resources held by the entity and performances of the reporting entity, useful to those having right to such information. According to Agwor and Okafor (2018), the fundamental objectives of corporate report is to communicate economic measurements and information about the performance of the reporting entity useful to those having rights to such information. Nzotta (2008) stated that financial reports assist users in assessing past and present performance of the organisation and its ability to maximize wealth of shareholders. Besides, it evaluates the ability of the organisation to create value and objective assessment of value created over time. Financial reports highlight financial information which provide insights into these resources held by an organisation. The claims to these resources including the obligation of the organisation to transfer resources to other entities and owners and effects of transactions, events and circumstances that change its resources and claims to these resources (Glautier &

Underdown, 2001; Nzotta, 2008). Also, the primary aim of financial reporting is to offer high-quality financial reporting information regarding economic entities, mainly financial in nature useful for economic decision-making (FASB, 1999; and IASB, 2008).

Belkaoui (2002) noted that qualities of financial reports encompassed relevance, reliability, understandability, objectivity, completeness, comparability and timeliness. But, the most widely used in prior studies to assess financial reporting quality entails accrual models, value-relevance models, research focusing on specific items in annual report and methods of operationalising the qualitative characteristics of financial statements.

First, relevance is the capability of using financial statements to make a difference in decisions by users in their capacity as capital providers (IASB, 2008). Drawing on prior research, relevance is operationalised using four items referring to predictive and confirmatory value. Many researchers have operationalised predictive value as the ability of past earnings to predict future earnings (Schipper&Vincent,2004; Francis, LaFond, Olsson &Schipper,2004). Confirmatory value to relevance of financial reporting information implies if it confirms or changes past (or present) expectations based on previous evaluations (IASB, 2008).

Second, faithful representation is the second fundamental qualitative characteristic in the standard. To faithfully represent economic phenomenon that information must be complete, neutral, and free from material error. Faithful representation is measured using five items of neutrality, completeness, freedom from material error, and verifiability (Maines&Wahlens, 2006; Kim, Simunic, Stein & Yi2007; Willekens, 2008).

Third, the first enhancing characteristic, understandability will improve when information is characterised, classified and presented in a clear and orderly manner. In the view of IASB (2008), understandability refers to a situation when information quality enables users to comprehend their meaning. Courtis (2005) argues that understandability is gauged using five (5) items that accentuate transparency and purity of information in financial reports.

Fourth, c*omparability* explains information quality that enables users identify matches in and variations between two sets of economic phenomena. Comparability is gauged using six (6) items that centre on consistency. Four items refer to consistency in use of the similar accounting policies and procedures from period to period within an organisation (Schipper & Vincent, 2004) and two items are employed to gauge comparability in a single period across organisations (Beuselinck & Manigart, 2007). *Lastly, timeliness* of financial report means having information readily available to users before it loses its capability to influence decisions (IASB, 2008); it refers to the time it takes to reveal the information and is connected to decision usefulness at large.

Theoretical Anchorage

- *Stewardship theory*

Stewardship theory is a theory that makes managers to act as accountable stewards of the assets of the organisation they control. Management pursuing their own self-interest at the expense of the shareholders who can spread their individual portfolio in the activities of companies should make it with a just judgement. This indicates the impact of agency theory as a portion of the growing organisational economic movement. Therefore, such views have been challenged whereby researchers have termed stewardship theory as a structure which assumes

the managers are after maximizing organisational objectives (Donaldson, 1990a; Donaldson & Davis, 1991).

Chalaki, Didar and Riahinezhad (2012); Edogbanyaand Kamardin, (2014) supported the acceptance of stewardship theory on financial reporting quality. Also, Donaldson and Davis, (1991) affirmed that the need of stewardship theory is expected to be met within the aim of financial reporting quality. Therefore investors making decision rely on the entities financial reporting quality where managers assigned to prepare accordingly. According to Chalaki, et al. (2012) financial reporting quality objective is to provide information useful to existing and prospective providers of finance to make decision. Therefore, this study is premised on this theory.

Some Prior Related Studies

Oyebisi, Wisdom, Ayodotun, AbimbolaandEche (N.D) examined the link between accounting ethics and performance of accounting firms in Nigeria by means of survey design. Questionnaire was administered to employees of five (5) renowned audit firms: KPMG, Delloitte, Ernst and Young, Akintola Williams and Price Water House Coopers. The Pearson Product Moment Correlation technique was used in analysing the data obtained in the field survey. Findings revealed a significant link between accounting ethics and the performance of accounting firms in Nigeria. In addition, it was found that there is a significant link between the level of awareness of the code of ethics and organisation performance.

The study by Mahdi and Mohsen (2011) investigated the impact of professional ethics on financial reporting quality in Iran. Questionnaire was administered to two hundred and five (205) companies selected in the Tehran Stock Exchange and Spearman correlation coefficient was used in analysing the data obtained. The study found a significant association between professional ethics and the quality of financial reporting.

Similarly, Ogbonna, and Appah (2011) assessed the effects of ethical accounting standards on financial reporting quality of Nigerian banks. Secondary data were employed and econometric models (diagnostic test, augmented dickey-fuller, ordinary least square and granger causality) were employed in the analysis of data. Findings revealed that ethical accounting standard significantly relates to financial reporting quality of Nigerian banks.

Joseph and Jossy (2014) explored the impact of accounting ethics on financial reporting of oil and gas firms in Nigeria. Metrics of return on investment, earnings per share and dividend per share were utilized as proxies for financial reporting. Accounting ethics measure are, namely: independence, objectivity, integrity, accountability and competence. Multiple regression results showed that there is a positive link between accounting ethics and financial reporting with respect to return on investment, earning per share and dividend per share.

In a recent study, Agwor and Okafor (2018) examined the nexus between accounting ethics and financial reporting quality using tourism and hospitality firms in Rivers State. The study adopted the quantitative design and questionnaires were distributed. Accounting ethics were gauged by means of professional independence and competence while financial reporting quality, qualitative attributes of reliability and understandability. The ordinary least square (OLS) estimation technique was used and findings support the assertion that variability in accounting ethics can account for between79% and 91% of the variability in financial reporting quality. Understandability was significant at 5% level in linking with both competence and independence, however, reliability was found to be significant at 5% level, only with

independence. This implies that accounting ethics had a significant link with financial reporting quality.

Azona (2019) investigated the effects of accounting ethics on financial reporting quality of commercial banks in South Sudan. Using descriptive survey design and one hundred and twenty nine (129) accountants, the study concluded that accounting ethics have significant effect on financial reporting quality. The empirical literature underscores the relevance of replicating the study in the consumer goods industry, as evidence is indicative of the existence of a relationship between ethics and the quality of professional conduct which dog tales to quality of output of the system. On the basis of the foregoing we propose that:

H_1: The quality of financial reporting in the consumer goods sector in Nigeria is significantly dependent on the level of ethical compliance by the accounting personnel

Methodology

This study adopts the descriptive survey research design, which seeks to elicit the objective opinion of the respondents on ethics and financial reporting quality. The primary source of data was adopted with the questionnaire being the research instrument engaged as a tool for data collection. The population of the study captured twenty-eight (28) consumer goods sector firms listed on the Nigeria stock exchange market as at 31st December, 2018. While, a sample of fifteen (15) of this firms was selected using the simple random sampling technique.

In pursuance of a reliable and dependable data needed for the study, seventy-five (75) questionnaires were administered to the employees in the accounting departments of the selected consumer goods companies based on accessibility. Moreover, the questionnaires were designed on a 5-point Likert scale of strongly agree, agree, undecided, disagree and strongly disagree. The reliability of the instrument was done using Cronbach Alpha and it yielded 0.76 coefficients of reliability. The data obtained in the field survey were analysed using the ordinary least square (OLS) estimation technique and the model is specified as:

$$\textit{Financial Reporting Quality} = f(\textit{Accounting Ethics}) \quad - \quad \textit{eq. 1}$$

$$FRQ = \alpha_0 + \beta_1 ACCTETI_i + \varepsilon_t \quad - \quad \textit{eq. 2}$$

Where: FRQ = Financial reporting quality; ACCTETI = Accounting ethics; ε= error term; α_0 and β_1 are the regression coefficients.

4. Results

The result of the study is presented below.

Table 1: Accounting Ethics and Financial Reporting Quality

Dependent Var.: FRQ				
Method: Least Squares				
Included observations: 75				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
C	17.80177	2.394912	7.433164	0.0000
ACCTETI	0.084379	0.240673	0.350597	0.0274

R-squared	0.42554	Mean dependent var		18.6
Adjusted R-squared	0.418226	S.D. dependent var		5.205962
S.E. of regression	5.253189	Akaike info criterion		6.194726
Sum squared resid	1324.608	Schwarz criterion		6.271207
Log likelihood	-152.868	Hannan-Quinn criter.		6.22385
F-statistic	4.122918	Durbin-Watson stat		2.199665
Prob (F-statistic)	0			

Source: *Authors' computation*

The result in Table 1 shows the link between accounting ethics and financial reporting quality. The result shows R-squared of 0.42 indicates that 42 % of systematic variation in the quality of financial reporting is accounted for accounting ethics. The result showed that accounting ethics had a positive and significant link with financial reporting quality. The prob. (F-stat) is 0.0000 suggesting that the model is good enough and significant at 5%. The Durbin-Watson value is 2.1, implying the nonexistence of autocorrelation in the model.

The conclusion is that accounting ethics had a significant link with financial reporting quality. The result is consistent with the works of (Ogbonna & Appah, 2011; Mahdi & Mohsen, 2012; Agwor & Okafor, 2018; Azona, 2019) amongst others, that ethics in the accounting profession is vital to financial reporting quality of companies. These results clearly support the fundamental role of accounting ethics in enhancing the quality of financial reporting in Nigeria, and the world over.

Conclusion and Recommendations

In this paper, the effect of accounting ethics on financial reporting quality in Nigeria was examined. The descriptive survey design was employed. Questionnaire was the major instrument of data collection administered to employees of fifteen (15) consumer goods firms. The data obtained in the field survey were analysed using the ordinary least square (OLS). The study concludes that accounting ethics had a positive and significant relationship with financial reporting quality. This implies that high accounting ethics and standards are fundamental in realising objective, reliable and transparent reporting. The implication of this is that neither industry type nor accounting jurisdiction takes away the need for high ethical compliance.

Furthermore, it portrays the relevance and pervasiveness of the accounting profession. Therefore, in all instances where accounting service is provided, accountants must ensure high ethical standards to remain relevant and to satisfy the decision usefulness objective of accounting practice. Furthermore, firms in Nigeria should put in place ethics and compliance department to direct and monitor ethics implementation in their day-to-day operations.

REFERENCES

Abdol-Mohammadi, M. J., & Reeves, M. F. (2000).Effects of education and intervention on business students' ethical cognition: A cross sectional and longitudinal study. *Teaching Business Ethics* 4(3), 269-284.

Abdol-mohammadi M. J, & Reinstein A. (2012). Practicing accountants' views of the content of ethics courses and course effects on attitudes and behaviour. *AdvAccountEduc: Teach CurricInnovat.,*13, 213-236.

Aguolu, O. (2006). Ethics and integrity in the accounting profession. *Nig. Account*., 41(3), 54-59.

Agwor, T. C., &Okafor, R. (2018). Accounting Ethics and Financial Reporting Quality of Tourism and Hospitality Firms in Rivers State. *Journal of Accounting and Financial Management, 4* (3) ISSN 2504-885

Ajibolade, S. O. (2008). A survey of the perception of ethical behaviour of future Nigerian accounting professionals. *The Nigerian Accountant. 43(3), 54-59.*

Alleyne, P., Devonish, D., Nurse, J., & Cadogan-McClean, C. (2006).Perceptions of moral intensity among undergraduate accounting students in Barbados. *Journal of Eastern Caribbean Studies, 31(3), 1-26.*

Arowoshegbe A. O., Uniamikogbo E, &Atu G. (2017).Accounting ethics and audit quality in Nigeria. *Asian Journal of Econ, Bus and Acc., 4*(2),1-15.

Azona, N. M. (2019). Investigating effects of accounting ethics on quality of financial reporting of an organisation: Case of selected commercial banks in South Sudan Mediterranean. Journal of *Social Sciences, 10(1)*

Belkaoui, A.R., (2002). *Accounting theory*. London: Thomson Learning.

Beuselinck, C. &Manigart, S. (2007). Financial reporting quality in private equity backed companies: The impact of ownership concentration. *Small Bus. Econ*., 29: 261-274

Chalaki, P., Didar, H., & Riahinezhad, M. (2012). Corporate governance attributes and financial reporting quality: Empirical evidence from Iran. *International Journal of Business and Social Science, 3*(15), 223-229.

Courtis, J., (2005). Reliability of annual reports: Western and Asian evidence. Account. *Audit. Accountability J., 8*(2): 4-17

Dellaportas, S. (2006). Making a difference with a discrete course on accounting ethics. *Journal of Business Ethics*, *65(4), 391-404.*

Donaldson, L., (1990). The ethereal hand: Organisational economics and management theory. *Academy of Management Review*, 15, 369.

Donaldson, l., & Davis J., (1991).Stewardship theory or agency theory: CEO governance and shareholder returns. *Australia Journal of Management,* 16-49

Edogbanya, A., & Kamardin, H. (2014).Adoption of international financial reporting standards in Nigeria: Concepts and Issues. *Journal of Advanced Management Science, 2*(1), 72-75.

Enofe A.O., Utomwen O.A., & Danjuma E. J. (2014) Ethics and accounting practice in Nigeria. *International Journal of Advanced Academic Research - Social Sciences and Education. Retrieved from* |www.ijaar.org

Francis, J., R. LaFond, P. Olsson & Schipper, K. (2004).Cost of equity and earnings attributes. *Account. Rev.,*79 (4), 967-1010

Glautier, M.W.E. & Underdown, B. (2001). *Accounting theory and practice*.7thEdn. Harlow Prentice Hall and Financial Times, Essex

Haas, A. (2005). Now is the time for ethics in education. *The CPA Journal.* http://www.nysscpa.org/printversions/cpaj/2005/605/p66.htm.

Harris, J., Feder, E. K., & Tamar-Mattis, A. (2006).*Enhancing evolution: The ethical case for making better people*. Princeton, NJ: Princeton University Press.

Heysel P. (2013). The effect of a corporate culture of ethics on shareholder wealth maximization. (Applied project).

IASB, (2008). Exposure Draft on an improved conceptual framework for financial reporting: The objective of financial reporting and qualitative characteristics of decision usefulness financial reporting information, London

Jenfa, B.I., (2000). *Elements of professionalism and practice of accountancy*. Jos: Ehindero Nigeria Limited.

Joseph, E. E. & Jossy, W. D.(2014). Accounting ethics and the quality of financial reporting:a survey of some selected oil exploration and producing companies in Nigeria. *IOSR Journal of Business and Management (IOSR-JBM), 16*(7)26-3

Kim, J. D., Simunic, M. C.H., Stein &Yi. (2007).Voluntary audits and the cost of debts capital for privately held firms. *Working Paper Series*

Luftig, J. &S. Quellette, 2009. The decline of ethical behaviour in business: How the quality professional can and should meet challenges: http://www.cluteinstituteonline.com.

Mathews, M. R. & Perera, M. H. B., (1996). *Accounting theory and development International* Thomson Publishing, South Melbourne.

Mahdi, M., & Mohsen, K. (2011) the impact of professional ethics on financial reporting quality. *Australian Journal of Basic and Applied Research, 5*(11), 2092-2096.

Maines, L. & J. Wahlens, (2006). The nature of accounting information reliability: inferences from archival and experimental research. *Accounting Horizons,* 20(4), 399-425

McMurrian R, & Matulich E. (2006). Building customer value and profitability with business ethics.*Journal of Bus Econ Res,4*(11), 11-18

Nwanyawu, LA. Accounting ethics and fraud control in Nigeria: The Emergence of a Fraud Control Model. *Journal of Acc, Finaud Students. 4*(1), 140-150.

Nzotta, S.M., (2008). *Accounting: Theory and principles*. Good-Davis Associate, Owerri

Ogbonna, G. N. (2010). Ethical considerations in corporate governance: A Survey of governance practices of corporate stakeholders in Nigeria. *Int. J. Bus. Behaviour. Sci. Res., 1*(1), 91-108.

Ogbonna, G. N. & Appah, E.(2011). Ethical compliance by the accountant on the quality of financial reporting and performance of quoted companies in Nigeria. *Asian J. Bus. Manage., 3*(3), 152-160.

Oghene G., & Yomere O. (2008). Business ethics: A panacea for sustainable development in Nigeria. *Niger AcadManagJournal, 2*(2), 23-25

Osisioma, B.C. (2000). Ethics and professionalism: The challenge for the certified national accountant(ANAN) mandatory continuous professional development (MCPD) lectures, May 23, 2 Enugu, Nigeria.

Oyebisi, M. I. Wisdom, O., Ayodotun, I., Abimbola, J., & Eche, O. (N.D) Accounting ethics and the performance of accounting firms in Lagos, Nigeria. *Journal of finance & marketing.*

Peterson, D., Rhoads, A., & Vaught, B.C. (2001).Ethical beliefs of business professionals: A study of gender, age and external factors. *Journal of Business Ethics*, *31, 225-232.*

Rest, J. R., & Narvaez, D. (1994). *Moral development in the professions: Psychology and applied ethics.* Erlbaum, Hillsdale, NJ.

Ryan, L. V (2005). Toward a corporation with conscience. *Strategic Finance, 85*, 20-21.

Saghafi, A., Rahmani H., & Rabie, A.(2010). Undergraduate accounting ethics education. *Ethical Issues in Science and Technology*, 5, 1-2.

Sanusi, L. S. (2010): The Nigerian banking industry: what went wrong and the way forward" *delivered at the Convocation Square, Bayero University, Kano, on Friday 26 February, 2010 to Mark the Annual Convocation Ceremony of the University.*

Schipper, K. & Vincent, L.(2004). Earnings management. *Accounting Horizon,* 17, 97-110.

Willekens, M., I (2008). Effects of external auditing in privately held companies: Empirical evidence from Belgium. *Working Paper Series*

Zeghal, D. & Mhedhbi, K. (2016).An analysis of the factors affecting the adoption of international accounting standards by developing countries. *The International Journal of Accounting, 41*(4), 373-386.

APPENDIX

QUESTIONNAIRE

Dear Respondent,

This questionnaire intends to collect information on ***Accounting Ethics and Financial Reporting Quality***. The information supplied in this questionnaire is hereby required for such purpose only and would be treated with utmost confidentiality. Thanks.

Instruction: Please answer the following questions as objectively as you can, by ticking the answer which you consider appropriate amongst the alternative provided.

Section A

Please tick or mark (√) in the boxes provided or fill where appropriate.

1. Sex: Male ( ) Female ( )
2. Age: Less than 30 ( ) 31- 40 ( ) 41-50 ( ) 51-60 ( ) Above 60 ( )
3. Highest academic qualification: Primary school cert ( ) SSCE/GCE ( )
   HND/B.Sc/BA ( ) M.sc/MBA ( ) PhD ( )
4. Work Experience: 1-5yrs ( ) 6 – 10Yrs. ( ) 11 – 15Yrs. ( ) 21Yrs. And above ( )
5. Position: Top level ( ) Middle level ( ) Lower level ( ) Others ( )

Section B: please tick (√) as appropriately

S/N	ITEMS	SD	A	D	SD
1	Adhering to the principle of integrity by firm improve the financial reporting quality				
2	Timely presentation of financial report enhance its quality				
3	Financial statement providing the investors with complete information enhance the quality of the financial report				
4	Firms faithfully showing both their negative and positive event equally tends to have high quality financial statement				

5	Going by the codes of conduct guiding the activities of the firm improve the financial reporting quality				

Thank you for filling the questionnaire.

ARTICLE PUBLICATION HISTORY

Received on May 26, 2020

Accepted July 29, 2020

Published August 22, 2020

Effect of Digital Games on English Vocabulary Learning: A Meta-Analysis

Lina Lafta Jassim

Abstract: This study aims to test the effects of digital games on Asian students' English vocabulary learning. Data used in this study were collected from Web of Science (WoS) and Education Resources Information Center (ERIC) from 2008 to 2018. A meta-analysis was performed to minimize heterogeneity between studies. The data were analyzed and visualized according to effect sizes. The results of this study showed that digital games played a significant role in promoting Asian students' English vocabulary learning. This study also examined five factors that influenced students' English vocabulary learning, including learning stage, game-aided teaching method, native language background, game platform, and game scenario. Effects of these factors were compared by referring to the standards for effect sizes. The results indicated that native language background had the most prominent impact, while negative transfer of native language hindered the vocabulary learning of Asian students. The effects of game platform, game-aided teaching method, and game scenario were not significant. The implication of this study is that creating context-based, high-quality educational games is a promising approach to promote Asian students' English l

Keywords: Digital game; English vocabulary; Learning; Meta-analysis

Introduction

Digital games are those designed and developed relying on the computer technology and implemented through digital equipment as a platform. "Computer games", "video games", "online games", "mobile games" and other games are included into digital games. This paper defines the term “digital games” specifically as those developed for the purpose of promoting teaching and learning, as a form of educational games (Reinhardt, 2019). *China's Plan towards Education Modernization 2035* states that one of top 10 strategic missions is to "accelerate the transformation of the information era", and points out that "modern technology needs to be applied to accelerate the reform of the talent training mode and organically combine large-scale education with individualized training."

As one of the trends for the development of education information, digital games are worthy of continuous attention. In the academic field, it is argued whether digital games can facilitate English vocabulary learning. On the one hand, the role of digital games has been affirmed in terms of its satisfactory performance in enhancing the students’ learning motivation; on the other hand, the real facts are conflicting with these positive results, and there have been debates over the applicable target users and game settings. Therefore, the meta-analysis method was adopted in this study, and the factors influencing the English vocabulary learning effect are mainly discussed based on answering whether the digital games facilitate foreign language vocabulary learning. Accordingly, this paper was also aimed to guide the teachers on how to reasonably practice the digital-game-aided teaching and promote the deep application of digital games in the field of education, from the transformation of tool availability towards the view of broader educational value and learning mechanism.

Literature Review

At present, there are two opinions regarding the studies on the impacts of digital games on English vocabulary learning: digital games can facilitate English vocabulary learning; digital games bring little impact on vocabulary learning.

The first view is that digital games can improve the learning effects by enhancing the learning experience and stimulating learning interests. For example, Sahrir et al (2012) designed and developed a web-based vocabulary game for beginner learners of the English language so as to provide interactive learning experience for the learners, and to allow the learners to better memorize the vocabulary with stronger interest; Wang et al (2015) stated that the digital games designed according to meaningful learning materials available in daily life contributed to the development of listening and speaking skills on the basis of mobilizing the learners’ motivation; Franciosi et al (2016) conducted a quasi-experiment in Nihon University. The experimental group used an online vocabulary learning application (Quizlet) and an online game, while the

control group only used the vocabulary application. It was later found that the experimental group performed better than the control group in the delay test. The results showed that the digital games could promote long-term vocabulary memory; Cerezo et al (2019) developed a mobile game based on holographic technique to help Spanish-speaking children practice basic English vocabulary pronunciation. The test results showed that, compared with the traditional classroom teaching methods, the games had a significant impact in stimulating children's learning motivation and helped to improve their academic performance.

The second view is that digital games have a negative impact on English vocabulary learning, and especially significant differences exist in the gameplay experience and applicable age of the target users. On the other hand, there are some negative impacts, too. For example, Ebrahimzadeh and Alavi (2016) point out that while language students watch a video with subtitles, they are only required to attend to, while players of video games must perform additional tasks in their second language input, which may interfere with learning in either a positive or negative way. DeHaan et al (2010) also state that video games would have a negative impact on English vocabulary learning. High interactivity of computer games brought additional cognitive load, and resulted in the forgetting of a large number of vocabulary; Aghlara & Tamjid (2011) pointed out that, when lower grade students learned English vocabulary, intuitive games such as word cards and board games had better effects than computer games.

In summary, more scientific and comprehensive study conclusions were not drawn regarding whether the digital games had a positive impact on English vocabulary learning. Moreover, many factors, such as native language background, game-aided teaching method, vocabulary difficulty, as well as the game itself, would also significantly affect the learning effect. Therefore, a meta-analysis method was adopted in this study to discuss the impacts of digital games on English vocabulary learning and explore the factors significantly influencing the vocabulary learning effect.

Research Method and Process

Research Method and Tool

Meta-analysis refers to the application of specific design and statistical methods for the overall and systematic qualitative/quantitative analysis of previous research results. Its advantages over the traditional review methods lie in that meta-analysis is unlimited by the number of studies; the analysis process is rigorous and scientific, while the research conclusions are complete and objective. During a meta-analysis, the data are extracted from published literatures, such as sample size, mean and standard deviation; in addition, an effect size is given according to the specific methods and calculation formulas. Finally, the intensity of each variable is compared and analyzed based on this effect size.

The effect value has two functions, namely acquiring the functions of independent variables based on the effect size, and providing the comprehensive effects of an independent

variable in a series of experiments after obtaining the mean of many effect sizes. During the mean difference tests for two independent samples, the standardized mean difference (SMD) of the experiment group and control group is generally taken as an effect size. In this study, Review Manager 5.3 (Revman) was used for data extraction and analysis, effect size calculation, heterogeneity test, and publication bias. The results were then illustrated as a random effect model and a funnel plot.

Research Process

Literature Resources and Screening

In this study, the Web of Science, ERIC, Elsevier, and Google Scholar English-language databases were used for searching using the input form of TI (title) = "game" and "vocabulary". The earliest papers that focused on game-based learning was published by Prensky in 2001. A total of 446 English periodicals were collected when the search time-range was set to 2001 - 2018, and the search results were imported into NoteExpress in the form of bibliography for fine screening. The literature screening conditions were set as follows: The studies must be based on digital games; The research objects study English vocabulary; The study is an experiment or quasi-experiment; The study must concentrate on the impacts of digital games on English vocabulary learning; The research objects include experimental group and control group, and the specific number has also been stated;

The research data meet the meta-analysis conditions, such as mean and standard deviation; The study objects exclude students with SEN or learning disorder.

According to the above standards, a total of 55 dissertations were included into the meta-analysis after the strict screening. 2,160 samples were tested, and 82 effect sizes which met the meta-analysis requirements were obtained (some study samples contained multiple effect sizes).

Feature Value Encoding

In addition to the basic information of the research, in order to explore the factors influencing the English vocabulary learning effect, there was also a need to extract the eigenvalues of each article for encoding. The specific encoding rules included six aspects, as shown in Table 1:

Table 1. Feature Value Encoding

SN	Feature coding	Classification

1	Learning stage	Pre-school, primary school, secondary school, and university
2	Game-aided teaching method	Pure classroom teaching (only in classrooms), self-learning (after class), mixed learning (in classrooms and after class)
3	Native language	Asian (Chinese and Japanese), Middle Eastern (Iranian, Arabic and Turkish), Southeast Asian (Thai, Malay, and Indonesian), European (Spanish, Dutch, and Swedish)
4	Game platform	Computer and mobile devices
5	Game scenarios	General, moderate, and high

1 Encoded by author.

Analysis Framework

This paper explored the overall impact of digital games on English vocabulary learning. The following analysis framework was proposed based on various moderator variables (Figure 1).

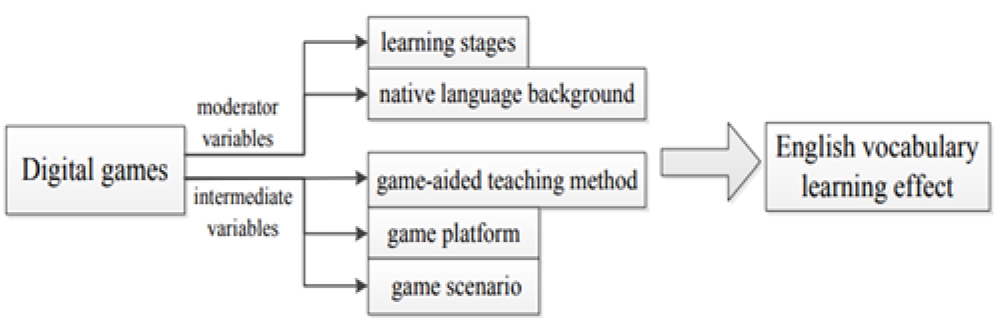


Figure 1. The meta-analysis framework

Data Analysis Results

Heterogeneity Test and Publication Bias

Heterogeneity Test

Heterogeneity inevitably exists during various studies due to the differences in sample selection, implementation process, research method, and evaluation standards, etc. The purpose of the heterogeneity test is to check whether the results of each independent study are amalgamable. The heterogeneity determines the selection of the analytical models. For small heterogeneity, a fixed effect model is used. For large heterogeneity, a random effect model is more reliable. Generally, the heterogeneity is determined according to the I2 value. As shown in Table 2, when the I2 was 93% (I2>75% indicates significant heterogeneity), the sample heterogeneity was high, and many potential influencing factors existed. Therefore, a random effect model was selected to combine effect sizes.

Table 2. Verification of the overall effect of digital games for English vocabulary learning

<table>
<tr><th>Model</th><th>d</th><th>95% CI</th><th>df</th><th>I^2</th><th>P</th></tr>
<tr><td>Random effect model</td><td>0.94</td><td>0.69, 1.20</td><td rowspan="2">58</td><td rowspan="2">93%</td><td rowspan="2"><0.00001</td></tr>
<tr><td>Fixed effect model</td><td>0.84</td><td>0.77, 0.90</td></tr>
</table>

1 Calculated by author.

Bias Test

It is easier to publish the papers with positive results than those with negative results in similar studies. Such papers also feature shorter publication cycle and higher influencing factors for periodicals publication, while the papers are also cited more frequently than those with negative results (Pereira et al, 2017). It easily results in the inability to systematically represent the overall research situations of this field by the collected literature, hence affecting the meta-analysis results. Therefore, a publication bias test was required. During a meta-analysis, a funnel plot is usually used to identify the bias. In Figure 3, the points represented the effect sizes of each sample, and the center dash line represented the mean effect sizes. It could be seen from the figure that these points were relatively evenly distributed on either side of the dotted line, and most of them were at the upper end of the "inverted funnel", which indicated that there was a small possibility of publication bias during the study and that the study results were highly reliable.

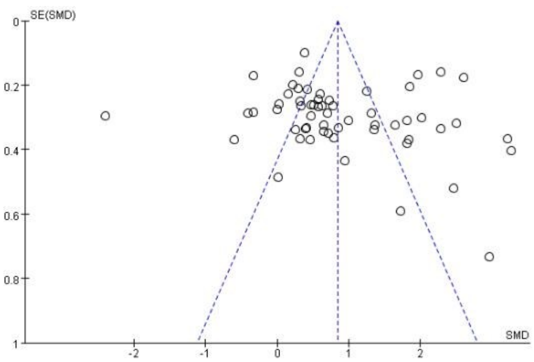


Figure 2. Funnel Plot for the Publication Bias Test

Overall Effect Size Analysis

The overall effect test showed that the learning effect was significantly improved after the application of digital games into English vocabulary learning. According to Cohen's effect size determination standard (1988), when the effect size was 0.2, the effect is small; when d = 0.5, the effect is moderate; when d = 0.8, the effect is significant. In Table 2, the combined effect size d of the random effect model was 0.94, while the upper and lower limits were 0.69 and 1.20 respectively at the 95% confidence interval, which indicated that the overall effect size was reasonable and that it was statistically significant at the 0.05 level ($p<0.05$). The effect size of the study ranged between 0.8 and 1.0, which indicated that the digital games had

greater impacts on English vocabulary learning and could effectively improve the learning effect.

The Influencing Factors of Digital Games for English Vocabulary Learning

Due to large heterogeneity between studies after combination, it was necessary to combine the feature values of the studies so as to explore the factors influencing the English vocabulary learning effect.

Learning Stage

In overall, the learning stage presented no significant difference in learning effects, and all of them had positive impacts on English vocabulary learning. According to their respective effect sizes, the effect size for the pre-school stage was 0.5, showing moderate effects; while other learning stages were significantly stronger than the pre-school stage in the learning effect; the effect sizes of the primary school, secondary school and university stages were greater than 0.8, which indicated that the games had great impacts in improving English vocabulary learning, especially in primary school (d=0.93) and university (d=0.96) stages.

Table 3. Impact of learning stages on English vocabulary learning effect

Learning Stage	**N**	**D**	**95% CI**	**Z**	**P**
Pre-school	5	0. 50	0.26, 0.75	4.01	<0.0001
Primary school	17	0.	0.48, 1.39	4.02	<0.0001

		93			
Secondary school	14	0. 89	0.45, 1.33	3.97	<0.0001
University	20	0. 96	0.44, 1.49	3.60	0.0003

1 Calculated by author.

Game-Aided Teaching Method

The effect sizes of three game-aided teaching methods ranged between 0.6 and 1.0, which indicated that any learning mode had a positive impact on English vocabulary learning. From the perspective of their respective effects, the effect of these three kinds of game-aided teaching methods were as follows: self-learning (d=1.05)>classroom learning (d=0.84)>mixed learning (d=0.68), which indicated that self-learning had the best effect and had a positive impact on English vocabulary learning for the students at various learning stages (see Table 5). Therefore, this could further explain why self-learning could better improve the English vocabulary learning and reflect the students' hopes to master their own learning progress within a certain period.

Table 4. Impact of game-aided teaching method on English vocabulary learning effect

Game-aided teaching Method	**N**	**D**	**95% CI**	**Z**	**P**

Classroom learning	9	0.84	0.39, 1.29	3.69	0.0002
Self-learning	36	1.05	0.68, 1.42	5.61	<0.00001
Mixed learning	14	0.68	0.23, 1.14	2.94	0.003

1 Calculated by author.

Table 5. Impact of self-learning stages on English vocabulary learning effect

Self-learning Stage	**N**	**D**	**95% CI**	**Z**	**P**
University	13	0.80	0.02, 1.58	2.01	0.04
Secondary school	8	0.83	0.19, 1.47	2.54	0.01
Primary school	8	1.26	0.52, 2.00	3.35	0.0008

1 Calculated by author.

Native Language

The native language background is an important factor influencing the English vocabulary learning effect. In different countries and regions, the overall effect size of the Asian regions was 0.62, showing moderate effects; the overall effect size of the students in the Middle East was 1.33, among which the digital games for Arabic-speaking students had moderate learning effect (d =0.56), lower than Iranian-speaking (d = 1.38) and Turkish-speaking students (d =

1.41). The learning effect of different countries and regions are as follows: Southeast Asia (d=2.02)>Middle East (d=1.33)>English-speaking countries (d=0.8)>Asia (d=0.62)>Europe (d=0.53). It indicated that digital games played a significant role in promoting English vocabulary learning for the students in Southeast Asian and Middle Eastern countries.

Table 6. Impact of country and native language on English vocabulary learning effect.

Game Platform Attributes

According to Table 7, it could be concluded that computers and mobile devices showed a significant positive impact in promoting English vocabulary learning. The effect sizes d of the computers and mobile devices were 0.98 and 0.83 respectively. In contrast, computers showed slightly better learning effect, for which the reason lied in that the learners generally use computers to learn, usually in the computer room or in front of their desks. Owing to little interference from other forms of disturbances, the learners were more concentrated, and hence their learning was promoted.

Table 7. Impact of game platform on English vocabulary learning effect

Game Platform	**N**	**D**	**95% CI**	**Z**	**P**
Computer	45	0.98	0.68, 1.28	6.45	<0.001
Mobile terminal	14	0.83	0.34, 1.31	3.35	<0.001

1Calculated by author.

Game Scenario

The richness of the game scenario had different impacts on the learning effect. The effect size d was 0.1 for those with richer scenarios, which indicated that games with richer scenarios had positive and significant impacts in promoting English vocabulary learning, and produced the best effects among three kinds of scenes. The richness of the game scenario was reflected in the game setting and human-computer interaction. If the scene was too rich, the complex game setting and interaction might lead to an increase in knowledge capacity. In this case, although the learners' senses were continuously stimulated, the effect was deconstructive for

English vocabulary learning. Therefore, a moderate-level game scenario could better promote English vocabulary learning.

Table 8. Impact of game scenario on English vocabulary learning effect

Game scenario	N	d	95% CI	Z	P
Generally rich	22	0.80	0.45, 1.16	4.39	<0.001
Rich	29	1.00	0.61, 1.39	5.01	<0.001
Very rich	10	0.91	0.22, 1.60	2.57	0.01

1 Calculated by author.

Conclusions and Discussion

Meta-analysis was performed for the horizontal and vertical analysis of 55 English periodicals focusing on digital-games-aided English vocabulary learning published from 2008 to 2018. According to the five aspects of learning stage, game-aided teaching method, native language background, game platform, and game scenario, the factors influencing the learning effect were analyzed in depth. The study found that the overall effect size was 0.94, which indicated that digital games had a significantly positive impact on English vocabulary learning. It also revealed that the learning stage had no significant impact; from the perspective of game-aided teaching, self-learning had the best English vocabulary learning effect; from the perspective of native language background, the digital games had a positive role in promoting learning for students in Southeast Asia and Middle East, but had moderate

Region and Country		N	d	95% CI	Z	P	Inter-group Effect Size
Asia	China	2	0.62	0.16, 1.09	2.62	0.009	

	Japan	4					
Middle East	Iran	29	1.38	0.87, 1.89	6.29	<0.001	
	Turkey	3	1.41	0.86, 2.14			
	Saudi Arabia	5	0.56	0.35, 0.77			
Southeast Asia	Thailand Indonesia Malaysia	5	2.02	0.84, 3.20	3.35	<0.001	Chi^2= 12.97 (P = 0.01)
Europe	Spain Netherlands Sweden	8	0.53	0.18, 0.89	2.96	0.003	
English-speaking country	/	5	0.8	0.20, 1.40	2.61	0.009	

1 Calculated by author.

learning effect in Asia; from the perspective of game platform, computers had more prominent learning effect than the mobile devices; and finally, from the perspective of game scenario, the games with rich scenarios had the best vocabulary learning effect.

The Positive Effect of Digital Games on English Vocabulary Learning

In overall, digital games played a significant role in improving the English vocabulary learning effect. This indicates that digital games had certain advantages and values for cognitive memory-based

learning. Digital games enrich the learning experience compared to the traditional English vocabulary learning methods. With the popularization of the game, the element of seriousness in knowledge acquisition has been consciously weakened, and vocabulary memorization is no longer boring. Secondly, digital games stimulate learning motivation, and the learners' learning effect is enhanced by continuously enhancing the motivation. Finally, the usage of digital games is unlimited to the time and place, thus increasing the usage rate of the games. In general, digital games allows the learners to allocate more energy into learning, thus achieving better learning effect.

Factors Influencing Vocabulary Learning Effect

Table 9. Effect Sizes of Various Influencing factors

Influencing factor	**d**	**95% CI**	**Z**	**P**
Learning stage	0.89	0.64, 1.14	6.49	<0.00001
Game-aided teaching method	0.93	0.68, 1.18	7.17	<0.00001
Native language background	0.97	0.72, 1.22	7.64	<0.000001
Game platform	0.94	0.69, 1.20	7.30	<0.00

				00 1
Game scenario	0.91	0.66, 1.16	7. 21	<0. 00 00 1

1 Calculated by author.

According to the analysis results of various adjustment variables, influencing factors were categorized into 4 categories, and were sorted according to the specific influence as follows: native language background (d=0.97)> game platform (d=0.94)> game-aided teaching method (d=0.93)> game scenario (d= 0.91).

Firstly, in foreign language learning, everyone will be affected by different levels of native language transfer. When the target language is similar with native language culture background, a positive transfer of native language will occur during learning. When great differences exist between target language and native language in linguistic structure and features, the language habits of the native language will inhibit the learning of the target language (Schepens et al,2020), causing negative transfer. Besides, the learners are affected by the thinking mode of native language. When the language span is too large, a "thinking gap" will exist, and the learning process will become more rigid. Asian students usually live under a monotonous and less-substantial linguistic environment, and especially since the Chinese thinking affects the extraction of vocabulary, the students have poorer learning effect than those in other regions.

Secondly, the self-learning based game-aided teaching method can better promote learning. There are two main reasons: firstly, compulsory education is based on classroom teaching, while self-learning will give a fresh sense to the students, which stimulates learning. Secondly, in most English classes, the teaching content mainly focuses on the texts in the textbooks. The teachers generally start with vocabulary and analyze the texts word-by-word. The students learn knowledge under a very passive state, which results in the unilateral

imparting of knowledge in the English classes. At the same time, because of different learning levels of the students in the classrooms, the teaching effect is significantly reduced. Hence, for knowledge learning mainly involving vocabulary memory, self-learning gives sufficient initiative to the students. The students can adjust the learning time according to their own ability and learning needs, thus maximizing the learning effect.

Moreover, both learning platforms can effectively promote learning, but computers bring better learning effect, for which the reason lies in that computers perform better in enhancing student concentration, thus improving the learning efficiency. In contrast, the physical attributes of the platform affect the output and use of information. The display screens of computers are much larger than that of mobile devices, and more information can be displayed. The operation of the mouse and keyboard is more complicated than the operation of clicking a small screen. The platform adaptation to the environment also affects the learning input. Computer equipment occupies a certain amount of space. The learning environment is stable and closed, so that the learners are not easily interfered during the relatively concentrated period. Owing to the flexibility of handheld devices, the learning environment is unlimited, which leads to the sporadicity and shortness of the actual learning time.

The richness of game scenarios affects the English vocabulary learning effect. The richness of game scenarios is not directly proportional to the learning effect. According to the information processing theory of Young & Wang s' study (2014), the total cognitive load shall be controlled within the scope of working memory, otherwise the learning effect of the students will decrease. Although the complicated and cumbersome game scenarios seem to mobilize the enthusiasm of the students, the over-saturated images bring visual pressure, and the students cannot quickly screen and process the information, resulting in attention distraction, heavier cognitive load and poorer learning effect.

Finally, in addition to pre-school children, the learners can have better learning effect at different learning stages if they learn the vocabulary in the digital games. It is clear that, digital games have a significant role in improving the English vocabulary learning effect, and are widely applicable to the learners of all ages. The reason why preschool children have poor learning effect lies in that preschool children have a low cognitive level and are easily attracted by rich digital games forms, so that they ignore the essence of English vocabulary learning.

Recommendations

After analysis of the impacts of digital games on vocabulary learning and its influencing factors, the study would assess the application prospect of digital games in the field of education based on the students' cognitive development, game-aided teaching methods and other features.

Promotion of Application of Digital Games into English Teaching

In view of the impacts of digital games on English vocabulary learning, digital games shall be applied into reading, writing, translation and other fields. Compared with basic cognitive learning, the training of advanced skills is more challenging, so the teachers shall make full use of the interactive features of digital games and select corresponding games aided learning methods according to the students' cognitive development level. During game-aided teaching, the teachers shall reduce unnecessary guidance and give full play to students' initiative. With the innovative application of technology in the field of education, AR games are beginning to integrate into the teaching field, especially the immersion is significantly increased in the contextualized and immersive role-playing games, and AR technology can effectively expand the language communication channel without limitation on time and space. Under the close combination between high-tech technology and curriculum design, the teachers can receive feedback from the learners in a clearer and more intuitive way to adjust the teaching methods. Besides, the breadth and depth of technology application shall be strictly controlled to prevent technology abuse.

Digital Game Optimization Mechanism

The biggest difference between digital games and learning applications lies in knowledge presentation. The knowledge in the learning applications is generally classified according to the difficulty of the modules, and its essence is to electronicize the contents of the books. However, digital games do not directly present all knowledge. The students can obtain knowledge by completing a virtual task or series of virtual tasks in a complete scene. The learning motivation will tend to decline over time in the games, and less determined learning willingness and attitude will affect the stability and persistence of the learning process. Sung et al. (2017) believed that, if the design of educational computer games lacked appropriate learning strategies, this might not produce the expected results and bring poor learning effect, so learning motivation and

strategies cannot be ignored. Hence, in order to continuously drive the learning motivation, we need to continuously optimize the development, application and evaluation mechanism of the games, vigorously promote the iterative upgrade of digital games at a macro level, select the high-quality media platform at a micro level, design and develop rich learning resources, and skillfully use the games elements, receive feedback in a timely manner for design adjustment and improvement, and build a contextualized and intelligent digital game based on knowledge capacity.

Establishment of Sound Learning Mechanism

According to the educational nature of digital games, as the learners are the subject, the digital games shall fully serve the learners, and all designs of the games shall match the needs of the learners and fit the actual teaching scenes. For example, in China's English classes, the teachers prefer to Chinese teaching, so that the students cannot learn English in a purely real English environment. In addition, the students learn the books in most of the time, and the students have poor comprehensive expression ability due to lack of oral practice. Lin et al (2018) 's experiments proved that, if the flipped game-aided teaching method was adopted, the students' writing errors could be reduced, and the students' English writing ability could be improved. Therefore, for Chinese students, the teachers need to change the teaching methods and adjust the elements for classroom teaching, and simulate real scenes by introducing rich and diverse contexts so as to enhance the sense of immersion of the students, thus correcting the phenomenon of "holding one's tongue" in traditional classrooms. For classrooms with low participation, the games mechanisms such as medals and points of competitive games are introduced to stimulate students' learning enthusiasm and create a healthy competition atmosphere.

References

Aghlara, L., & Tamjid, N. H. (2011). The effect of digital games on Iranian children's vocabulary retention in foreign language acquisition. *Procedia-social and behavioral sciences*, *29*, 552-560.

Cerezo, R., Calderón, V., & Romero, C. (2019). A holographic mobile-based application for practicing pronunciation of basic English vocabulary for Spanish speaking children. *International Journal of Human-Computer Studies*, *124*, 13-25

Cohen, J. (1988). Statistical power analysis for the behavioral sciences, 2nd edn. Á/L.

DeHaan, J., Reed, W. M., & Kuwanda, K. (2010). The effect of interactivity with a music video game on second language vocabulary recall. *Language Learning & Technology*, *14*(2), 74-94.

.Ebrahimzadeh, M., & Alavi, S. (2016). Motivating EFL students: E-learning enjoyment as a predictor of vocabulary learning through digital video games. *Cogent Education*, *3*(1), 1255400

Franciosi, S. J., Yagi, J., Tomoshige, Y., & Ye, S. (2016). The effect of a simple simulation game on long-term vocabulary retention. *calico journal*, *33*(3), 355-379.

Jassim, L. L.(2015). Analysis of Semantic Errors in Iraqi EFL Learners' writings. *The Journal of University of ThiQar,*11(4):184-162

Jassim, L. L.(2016). Investigation of Sequential Progression Topics in Iraqi EFL Students' Writing, *The Journal of University of ThiQar,10(3):47-63*

Lin, C. J., Hwang, G. J., Fu, Q. K., & Chen, J. F. (2018). A flipped contextual game-based learning approach to enhancing EFL students' English business writing performance and reflective behaviors. *Journal of Educational Technology & Society*, *21*(3), 117-131.

Pereira, P. P. D. S., Da Mata, F. A., Figueiredo, A. C. G., de Andrade, K. R. C., & Pereira, M. G. (2017). Maternal active smoking during pregnancy and low birth weight in the Americas: a systematic review and meta-analysis. *Nicotine & tobacco research*, *19*(5), 497-505.

Reinhardt, J. (2019). Social media in second and foreign language teaching and learning: Blogs, wikis, and social networking. *Language Teaching*, *52*(1), 1-39. 2. Sahrir, M. S., Alias, N. A., Ismail, Z., & Osman, N. (2012). Employing Design and Development Research (DDR): Approaches in the Design and Development of Online Arabic Vocabulary Learning Games Prototype. *Turkish Online Journal of Educational Technology-TOJET*, *11*(2), 108-119.

Schepens, J., van Hout, R., & Jaeger, T. F. (2020). Big data suggest strong constraints of linguistic similarity on adult language learning. *Cognition*, *194*, 104056

Sung, H. Y., Hwang, G. J., Lin, C. J., & Hong, T. W. (2017). Experiencing the Analects of Confucius: An experiential game-based learning approach to promoting students' motivation and conception of learning. *Computers & Education*, *110*, 143-153.

Wang, S. Y., Hwang, G. J., & Chen, S. F. (2015, July). Development of a contextual game for improving English vocabulary learning performance of elementary school students in Taiwan. In *2015 IIAI 4th International Congress on Advanced Applied Informatics* (pp. 268-272). IEEE.

Young, S. S. C., & Wang, Y. H. (2014). The game embedded CALL system to facilitate English vocabulary acquisition and pronunciation. *Journal of Educational Technology & Society*, *17*(3), 239-251

Reclaiming African Personality through Religious Powers: Indigenous Churches and Cultural Re-Awakening in Post-Colonial Era

By
Kanayo Nwadialor

&
Ifeoma Bernice Ogbuji

Abstract: The spread of Christianity and Islam ushered in colonialism and globalization in Africa which led to the elimination of various aspects of African culture, world-view and epistemologies. This brought about imperialism which involves extensively personality deformation, misrecognition, loss of self-esteem and identity. However, Africans of the post-colonial era have been in constant struggle to reclaim African personality and redefine their society. This search for African personality led to the establishment of African Indigenous Churches. This is particularly so because since African culture is intricately rooted in their religion, and since African primal personality was conflicted by the advent of foreign religions, it is only logical to conclude that the only way Africans could escape from this personality crisis was for them to evolve a unique African variant of the Christian faith. This paper was, therefore, conceived as an attempt to look at the cultural reawakening programme of African Indigenous Churches and the role it played towards the restoration of African personality. The paper made use of primary and secondary sources employing the qualitative research design to collect and analyze data for the study. The racial identity development theory of William Cross was applied in the explanation of the motive behind the establishment of African Indigenous Churches to conclude that it is important for the rest of global Christianity to see the indigenous Churches in Africa as part of the budding forth of African personality.

Keywords: African personality, religious powers, African, indigenous churches, cultural awakening, post-colonial era.

Introduction

The continent of Africa that received the two major religions which originated from the Middle East has suffered from a crisis of civilization and personality for centuries. These two religions, particularly Christianity, were encased in foreign cultures that are alien and suppressive of African culture and personality. The advent of Christianity for instance ushered in western secularism which lacks a universalizing power because it does not resonate in cultures with the same rhythm of association. Colonialism, imperialism, globalization and neo-colonialism followed as natural cause and effects. All this culminated in the defamation and the bastardization of the African personality. Barr and Rosino (1994) believe that; when persons are bereft of their personality, their dignity, their freedom, their thought, their history, their language, their faith, the universe, and their basic creativity; deprived of all their rights, their hopes, their ambitions, that is when they are robbed of their ways of living and existence. This was the situation Africans found themselves as a result of Christianization, Islamization, colonization, slavery and globalization.

Elebeke (2010) defines personality as a "process located in the core of the individual and yet also at the core of his communal culture, a process which establishes, in fact, the personality of these two personalities. Your personality is who you are" (p. 22). Also, the principle of

personality states that every being is determined in, is one in itself, and is consistent in itself. According to Asadu (2020), “the question of personality has proved interminable. It is the question of what constitutes the humanness, dignity and personal identity of a human being” (p. 1). If one does not have a personality, then everything would be everything, giving birth to one thing since nothing can be differentiated from the other. However, a major transformation in a people’s corperate personality and the way they do things may occur if they have a personality crisis. Personality crisis is when you either lose track of who you are or do not feel happy with who you are and want to change your life or restructure it. This was the situation of Africans as they encountered the outside world through contacts with Christianity and Islam. It can be argued that no matter the level of cultural imperialism, non-western cultures, particularly from the Developing World will forsake their traditional values and lose their personality when they are solely exposed to Western media. Christianity came to Africa in the vessel of western culture, presently Africans see Christianity as an imposition. Ngugi (1981) posits that:

> The European missionary has attacked the primitive rites of our people; he condemned our beautiful African dances, the images of our gods recoiling from their suggestion of satanic sensuality. The early African converts did the same, often with even greater zeal, for he had to prove how Christian he was through the rejection of his past roots. So that in Kenya, while the European settler robbed people of their land and their sweat, the missionary robbed people of their soul. Thus, was the African, body and soul battered for thirty pieces of silver and the promise of European heaven... (p. 31).

Buhlmann (1978) adds that:

> At first, we had the land and the White men had the Gospel. Then the missionaries came and taught us to close our eyes and say our prayers, while the white men were stealing our land from us. Now we have the gospel and they have the land. (p. 89).

Christianity was introduced in Africa because Europe was interested in planting the seed of faith in Africa. The European Christians believed in the power of the Gospel to change any society; but there were many things that the missionaries did, which should be considered inappropriate. For instance, whatever way of life or customs the missionaries did not understand they often condemned as ‘fetish’ or ‘pagan’. Be that as it may, Christianity, Islam, westernization, colonialism and globalization marked the loss of African independence and also inaugurated the large scale destruction of lives, property, and works of arts, monuments and artifacts. Nevertheless, Africans hold the key to the future of the African continent. The world, as presently constituted, will not have a substantial hand in the transformation of Africa, unless there are radical changes in the present global social, economic, political, and cultural relations. The only path to truly human development and liberation for the majority of the people of Africa was through the transformation of their own lives in a struggle to replace and reshape the interfering worldviews that dominated their society and prescribed their existence. According to Vincent Harding (cited in Rodney, 2009):

> Now it is in our hands to overcome our history, to break the shackles of the past, to re-develop ourselves, our people, our nation and our world-to find humane, creative and fearless ways of dealing with those who presently oppose our development. These are audacious visions and truly awesome responsibilities. But we must go forward. Indeed, it seems clear to us that even without any guarantees of success, we must move with the flow of humankind's best, most creative imagination, in the direction of our most profoundly renewing dreams. (p. xxx).

Ekwenche (2002) asserts:

> Our ancestors gave up their lives in 1803 right here on Saint Simons Island seeking for freedom. Almost 200 years later, the Igbo in Nigeria is still not free. Yes, although the oppressors have changed many times, the reality of oppression remains unchanged. (p. 2).

Eze (2004) further adds that attempts have been made to introduce syncretistic forms of the foreign religions to interpret foreign faiths with African autochthonous religions but such attempts have not been successful. It is based on this that this paper will explore the trends in this effort to reclaim African personality, this time through religious powers as will be seen in the cultural reawakening of most African indigenous Christianity. It is a version of religiosity that teaches self-awareness, realization, self-development and esteem as needed to redeem Africans from the shackles of horrible conditions of life they found themselves in the colonial era (Amanambu, 2020.)

Theoretical Framework

This search for personality is, of course, hardly limited to blacks. Many Jews have taken personal odysseys to find their Jewish roots and the meaning of religion in their lives. The debaters within the black community can be understood by applying the 'black identity theory'. According to Carter, as published in the New York Times; "Each black person responds differently to their socialization and experience in terms of being black, the theory of racial identity development was posited by William Cross. He held that racial identity evolved in four stages, each stage is marked by different attitudes and psychological functioning. At first, the individual attempts to deny membership in a race. Then an experience challenges this individual's anti-black attitudes, causing psychological and emotional turmoil. Attempts to resolve the conflict are made in the third stage when a person discovers his or her cultural heritage. The individual may develop new idealized images and intense emotions about being black, and feel hostile toward whites. In the fourth stage, the person assumes a positive black identity and begins to accept a bicultural personality. This is evident in African response to their encounter with the Christian religion. Such response, as will be shown in this paper, spans through loyalty, voice and exit.

Religious Powers as Tools for African Personality

The definition of religion is a controversial subject in religious studies with scholars failing to agree on any one definition. Lambek (2002) says that writers have not agreed on what constitutes religion, noting that part of the problem is biased (some of which might be

innocent). Early anthropologists saw religion in terms of Christianity. Religion is the most important thing for the African because the world is seen through the eyes of faith; any other variable in the transformation of African society can only work if it is integrated into the religious life of the people. Idowu (1973) declares that for Africans:

> Life belongs to God. It is he who summons it into being, strengthens and preserves it. We find that in Africa, the real cohesive factor of religion is the living God and that without this one factor, all things would be falling to pieces… living it and practicing (i.e. Religion) … connects the past with the present and upon it that which they base the connection between now and eternity with all that, spiritually, they hope or fear. (p. 104).

It could be said of the African that every effect has a religious cause and every life puzzle can be unraveled through religion. Mbiti, (1992) echoes:

> Because traditional religions permeate all the departments of life, there is no formal distinction between the sacred and the secular, between the religious and the non-religious, between the spiritual and the material areas of life. Wherever the African is, there is his religion: He carries it to the fields, where he is sowing seeds or harvesting a new crop; he takes it with him to the beer party to attend the funeral ceremony; if he is educated, he takes religion with him to the examination room at school or in the university; if he is a politician he takes it to the house of parliament. (p. 2).

Ilo (2008) summarizes that the expression of religious sentiments in Africa takes different forms: In the mode of greetings, in the signs and symbols of religion that surround the people, in the various forms of prayers and deepest reverence that Africans show to religious places, religious objects and religious men and women.

Religious powers can be seen as focusing on the social dimension. In other words, religion holds political control or influence. Saints or scholars are viewed as mentally more capable of understanding God. Douglas (1996) concentrates on the power that lies within the margins of society. For him: “to have been on the margin is to be in contact with danger, to have been a source of power.” (p. 98). Douglas distinguishes between controlled and uncontrolled religious power and contends that:

> Pollution and sanctification rules are connected with their relationship to the ‘right’ kind of power. Where the social system explicitly recognizes the position of authority, those holding such positions are endowed with explicit spiritual power, controlled, conscious and external approved… where the social system requires people to hold dangerously ambiguous roles, these persons are credited with uncontrolled unconscious, dangerous, disapproved powers. (p. 100).

Otto (1958) declares that religion is composed of ethical and mysterious elements. The tremendous mystery, the ineffable unknown that is called God, is the impetus for the performance of religious acts including purity laws, prayer and sacrifice. Although ineffable, these acts are recognized by others as powerful because of the mysterious religious power

(holiness) that they produce. Torah holds an immense amount of power in Judaism. The Western Wall is the last remnant of the Temple, so it is the most sacred location for prayer in all Jerusalem. In Christianity, power emanates from objects such as the Eucharist and the Bible. Christians believe the actual presence of Christ is in the sacrament of Eucharist. The Bible is the legal and ideological power which shapes the religion. Saints are people who hold power in Christianity.

Africa has become a breeding ground for different religious sects with various degrees of claims to deliver the people from bondage. There is a mass exodus from the mainline Churches to the Pentecostal, evangelical, and African Indigenous Churches (AICs). This is because they feel that the mainline Churches do not often offer them the answers to the pressing social, economic, religious and political concerns of the day, and most importantly their identity as Africans. The mainline Churches, sometimes, lack a sense of African communal life, where everyone is known by name and they often tend to proffer abstract solutions to concrete problems, which demand pastoral flexibility and creativity. In some of these new Churches in Africa, Christian worship has, however, become theatrical and bizarre in some cases. This appears in the very limited and sometimes fundamental interpretation of Christians scripture among the new religious leaders. Faith is seen through the lenses of miracle and some exaggerated claims of the fantastic and the sublime. Christianity has now been directed to casting out demons, spiritual combat against some real and imagined enemies, and negative forces against people's progress in life. Africa is here at the threshold of rediscovering the powers of their primal religion and by extension their personality.

African Cultural Reawakening and the Roadmaps to African Indigenous Churches

The concept of culture is a complicated one. Williams (1976) claims that culture is one of the two or three most complicated words in the English language. The word 'culture' has been used in many different ways both by sociologist and in everyday conversation. All has been used implicitly or explicitly to contrast culture with nature. The things that humans produce or do are cultural whereas the things that exist or occur without human intervention are part of the natural world. Linton (1945) says "The culture of a society is the way of life of its members; the collection of ideas and habits which they learn, share and transmit from generation to generation" (p. 43). Nwabueze (2010) views culture as the entirety of norms, values, belief systems and life patterns that give a group identity. It is a universal truth that every nation or society is known for its own culture. This implies the dynamism and distinctiveness of every culture. Culture is dynamic but it does not remove the fact that it is an attribute and identifying term. The sum of these gives rise to changes in permanence. It, therefore, follows that despite the erratic time there are some things which remain unchanged in culture and as such identifies and individuates people.

For Atlas (1985) "Cultural awakening is connected to all the major issues of our societies, economic stratification, race relations technology, and education and community development" (p. 7). For Atlas, the choice of a family to educate their children in the language, traditions and history of a particular ethnic group in cultural policy. A grant maker's criterion for quality and excellence is cultural policy, a community development corporation's decision to focus on cultural tourism or historic preservation is cultural policy, the convergence of television, internet and other digital media is also cultural policy.

Miller and Yudice (2002) maintain that cultural awakening is both a product and a process, a framework for making rules and decisions that are informed by social relations and values, cultural policies, public and private, implicit and explicit are all the time. It is part of our everyday life. All the decisions we take concerning our everyday life amount to some form of policymaking, which brings about improvement. Towse (1999) maintains that cultural reawakening remains a process that provides for the preservation of the arts and culture of a people which is foundational of their history and of utmost relevance for growth and development. Singh echoes that "A cultural policy remains important for the preservation of culture not just for Africa, but for the world at large" (p. 12).

It is common knowledge that every society must build on its past. It is history, traditional values and norms that make for a present and a future. In this case, Africa stands to gain a great deal, by being involved in this global discussion, for the light it can shed on how to keep the multiplicity of her cultural traditions alive. Cultural re-awakening incorporates a broad range of measures taken to develop cultural life. Many policies with profound cultural impact are made by decision-makers who have given cultural consideration a thought.

The festival of Black and African Arts and Culture in 1977, known as FESTAC 77 cannot be forgotten in a hurry. This Festival of Art and Culture brought the black and African descent together in an intellectual and cultural manifestation that was hitherto unknown and resulted in the most exalting celebration of Africa and Black history, literature, arts and performing arts. It provided an opportunity for recounting the achievement of African ancestors, contemporaries and their invaluable contributions to the enrichment of world thought and ideas.

More so, the festival helped in debunking erroneous ideas and beliefs regarding the cultural and spiritual values of the Black and African race. It also explained to the world that African culture was not only pre-historic objectives placed in museums to be cleared and displayed occasionally, but also to them as a living process containing and portraying the values and beliefs of African people. FESTAC 77 created a great impression to the world about the great cultural heritage which Africans are known for.

Integration of cultural activities and values in all spheres of life has been very loudly pronounced in post-colonial Africa. Major ideas of African development have been linked to the authentic cultural values of the people. A draft copy of the final document became available in 1972 and by August 1989, cultural policy documents were received by various councils for Arts and Culture nationwide. The clearly set objectives of the cultural policy include serving to mobilize and motivate the people by disseminating and propagating ideas which promote national pride, solidarity and consciousness. Cultural policy is categorized thus: Preservation of culture, promotion of culture, presentation of culture and the establishment of administrative structure and the provision of funds for its implementation.

The impact of cultural re-awakening in the quest for personality cannot be overemphasized. Cultural reawakening has helped to project national culture, pride, solidarity and consciousness. Cultural values and standards are important parts of history; therefore, the cultural reawakening incorporates them in the general national developmental process. This is achieved through the involvement of all agencies and individuals, both traditional and contemporary in cultural activities which remain the bedrock of national identity. Cultural re-awakening with the set of rules requirement and priorities set out to retrieve and restore history and heritage, cultural

values and standards by protecting and projecting them for posterity. It is worthy to note that cultural re-awakening provides for the awareness of the traditional values, and generate respect and appreciation for each nation's heritage.

Although African culture gives Africans a distinct personality as peoples of various places, it is the values and standards which are practiced in cultural activities and are also observed in day to day activities that provide for sustenance and maintenance of what is referred to as culture. Cultural re-awakening serves as a platform and elevation for culture. It puts the spotlight on the very foundation of every nation; its culture alongside the standards and values that guide it. Nigeria is a multi-ethnic state endowed with rich cultures. Its major cultures seem to be decimated by geographic boundaries, giving birth to distinct cultures between the northern and southern regions of the nation. Because of this, John Paul II (1994) writes:

> Civilization belongs to human history because it answers man's spiritual and moral needs. Created in the image and likeness of God, man has received the world from the hands of the creator, together with the task of shaping it in his image and likeness. The fulfilment of this task gives rise to civilization, which is the final analysis is nothing than the humanization of the world. (p. 41).

Having said this, it is pertinent to note that African indigenous Churches have been at the forefront of this cultural re-awakening in a bid to reclaiming the lost personality of African people. This underscores the emergence of African Indigenous Churches as well as informed their continuous disposition and efforts at revamping the powers and relevance of African personality in a globalized world.

The Emergence of the African Indigenous Churches and the Quest for African Personality

African Indigenous Churches (AICs) represents over 10,000 Independent Christian denominations in Africa. It is referred to as African Independent Churches or African Instituted Churches. These African Churches came to life as a result of a revolt against the changing mission policy and practice in the twentieth century. It is worthy to note that Christianity among the Africans was started and nurtured in the era of colonialism. As a result of colonial factor, many of the converts to Christianity adopted a new personality based upon the colonial Christian order. Western Christianity was transplanted, root and branch in terms of doctrine, worship and polity without the necessary adaptations and modifications which the African cultural context demanded. Iwe (1985) demonstrates that the origin of Christianity beheld African culture battling with cannibalism, nudity, infanticide, destruction of twins, and mass illiteracy among others which Christianity frowned at. It was these negative and transitory phases of African culture that struck the early missionaries and prompted them to adopt in general, a negative attitude towards African culture. This negative reaction sparked off a culture clash between Africans and Christianity. Christianity considered the customs and traditions of the people as primitive and "pagan." The idea of European cultural superiority was manifested in the actions of the missionaries. Western civilization was equated with Christianity. As these events unfold, Africans seem to have allowed other cultures to dominate their personality basically due to the net-effects of the so-called modern civilization with the invasion of alien cultures and values. Contemporary Africans were then becoming more and more Europeans and fewer Africans in their values, mentality and general outlook. In this regard, numerous core

values and cultural patterns unique to Africans have been covered with ignorance. African Traditional Religion was, therefore, frequently devalued and only the authorities of imported religions seem to have significance. Thus John (2015) echoes that it is no exaggeration that African Traditional Religions have been seen as culturally irrelevant and imported religions are now so embedded in the psychology of Africans that most Africans were lulled into. By the by, African pioneer converts to Christianity started to see what showed up more like lip service and "holier than thou" mentalities in the lives of most European missionaries. European missionaries, African converts claimed, were so vocal even where the Bible seems to be silent. This observation called for questioning of the Christian faith that the Africans shared with their European counterparts who more or less were pioneers of European fortune seekers in Africa at the expense of Africans themselves. Hence, the voice of African converts began to long for the return of their ancient values and personality pattern. Ogbukagu, (2008) avers that the restoration of the dignity of man and the consequent preservation of his inalienable rights and privileges as a sovereign group, demands the sustenance of his personality (cultural norms and values). It was this search to reclaim African personality that led to the establishment of African Indigenous Churches (AICs). Idowu (1973) affirms that “The Christian leaders should be held responsible to a certain degree because Christianity remained a foreigner and never belonged in the environment in which she lived” (p. 3). This was because Christian leaders did not care to learn the peoples’ worldview and condemned every aspect of the peoples’ culture. This spurred the spirit of self-personality on Africans and led to the establishment of African Indigenous Churches. African Indigenous Churches are scattered in all African regions but, they are more adequately documented in West Africa and Southern Africa. AICs are independent in origin and organization. These are Churches founded by Africans and which inculcate aspects of African culture in the system.

African Indigenous Churches are well established by African initiatives rather than by foreign missionary agenda. Though many of these Churches are said to have mission Churches denominational names and relationships, they are not defined by these traditions. Moreover, AICs emphasize the biblical warrant to include African cultural norms into their modes of worship because the importance of culture in any nation cannot be over-emphasized. UNESCO has observed that cultural and economic independence and restoration are important springboards to the attainment of sovereign statuses. Culture is an icon of personality for every citizen or member of a community, hence there is, need for every race to protect and promote her culture and basic institutions since a distinct society can only be recognized by the culture which its members share. Maathai (2009) advocates that:

> If Africa is to build for the future, it must first face its past. Africa’s colonial history as a disastrous period for the continent and how many of the problems faced by its people today stems from the past, it tells of Africa’s loss of identity under its colonial occupiers and the disintegration of societal hierarchies that had developed over centuries. (p. 7).

It is interesting to observe that the Christian missions, which helped in the establishment of British rule in West Africa also began to work for its end, though unwittingly. The study of the Bible and the teachings of the missionaries taught the early converts to the idea of equality, justice and non-racialism. Thus African Indigenous Churches came as a result of the frustrations experienced by Africans, in locations across the continent over the European and American

missionaries and decided to form their own Christian Churches where they will be fully accepted. They combine local African religions with Christianity in variable ways, placing different amounts of emphasis on each tradition.

Some scholars think that AICs are syncretistic in that they combine indigenous African religion with Christian beliefs, but the degree to which this occurs is varying. Be that as it may, a process of acculturation between and African culture does occur. AICs have also demonstrated a strong missionary tendency in that most of the spread of Christianity throughout Africa in the 20th century can be attributed to African Indigenous Churches. Some AICs were established by Charismatic African Religious leaders such as Simon Kimbangu, Isaiah Shembe, Garrick Braide or William Wade Harris. The Bible is considered authoritative and found to contain empowering messages. Both leaders and laypeople read it carefully and on their own, believing that missionaries' interpretations were incorrect and biased because of their interests in the colonial administration.

African Indigenous Churches differentiate themselves from missionary Churches by incorporating local traditions into their practices of Christianity. They use African languages, dancing and drumming in their services, allowed polygamy and practice female excision. They are aware that African personality is the only reality and the gift that they carry in their relationship with others; if that is eroded they cannot build an African civilization nor relate to others from a certain perspective. If they are rooted in African tribal traditions Africans would have a base to relate with others and a locus of safety in the cultural crisis which has set the world on a confusing moral bazaar.

Allen (1991) posits that AICs lay much emphasis on divine healing; they so much believe that their Church is directed by the Holy Spirit. Most of their founders and leaders are men in quest of spiritual contemplation, and they all claim spiritual motivation for the founding of their organization. Spiritual interpretation is given to virtually all happenings especially misfortunes and failure in life, such as barrenness, poverty, illnesses among others. The Holy Spirit is believed to feature prominently in their worship as He manifests through visions, interpretation of dreams, ecstatic behavior and prophetic utterances. African Indigenous Churches help Africans survive in the modern world without losing their African personality.

Conclusion and Recommendations

The quest for the rediscovery of the African personality emerged as a result of racial discrimination, slavery and colonialism and currently globalization. It is an attempt to reaffirm African heritage and personality collapsing before Western bias. African Indigenous Churches, Religious powers and cultural reawakening have contributed immensely to the regaining of the African personality in Post-colonial Africa. AICs help Africans survive in the modern world without losing their African culture. African Indigenous Churches differentiate themselves from missionary Churches by incorporating local traditions into their practice of Christianity. They permitted the use of African languages, dancing and drumming in their services and the use of African names and polygamy.

One of the greatest instruments for African Renaissance is language. Language is an avenue through which man opens himself to his fellow man and in so doing, lives up to his nature as a social animal. It is the bedrock of people's culture. It defines lives, heralds existence, formulates

thoughts, enables all people are and have. It became a policy in African Indigenous Churches for the gospel to be read and spread in African indigenous languages to command the deeper meanings it is meant to convey to the people. This policy was consequent upon a disheartening fact that many Africans do not value their language and culture. Many people rightly believe that the fading use of the native languages of most African countries is perhaps the greatest evil that colonization caused in the continent. In many African societies today, it has been the sign of civility to speak and communicate in foreign languages. Most so-called high-class families prefer not to teach their children how to speak the native language, which in certain circles in Africa are seen as, sign of primitivism. However, Indigenous Churches preach that irrespective of where parents find themselves with their children they should endeavour to teach them their native languages because language carries with it the culture, personality and worldview of a people.

In this age of globalization, science and technology, it is needful that parents should insist on sound African moral values for their children. Kanu (2013) asserts that in the age where 'economism' has become the yardstick, it is crucial to inculcate African values, such as solidarity, the sacred, hospitality and love for life.

The African lawmaking bodies have a role to play. Kanu (2011) opines that if the laws and policies that can safeguard our values are promulgated by the government or enacted by traditional ruling councils, the decay of our values will be impeded and their recovery enhanced. There should be censorship of whatever comes from outside before they are allowed for consumption.

Also, learning institutions have a major role to play in this personality movement. It is through education that Africa values can be restored in the hearts of young Africans. Therefore, an Africa system of education needs to have an African dimension. This will enable young Africans to learn Africa's fundamental tradition and cultural values and truth.

References

Allen, T. (1991).Understanding Alice: Uganda's Holy Spirit movement in context. *Africa: Journal of the International African Institute*, 61, 3, 370- 399.

Amanambu, U.E. (2020). Liberation theology, an antidote to the contemporary feudalism: The Nigerian experience. *Igwebuike: An African Journal of Arts and Humanities*, 6, 12-29.

Asadu, G.C. (2020). A critical examination of African normative notion of personhood: Implications for abortion. Amamihe: *Journal of Applied Philosophy*, 18, 3, 1-11.

Atlas, C. (1985). *Culture and policy*. London: Longman.

Barr, R. R & Rosino, G. (1994). *Impoverishment and liberation: A theological approach for Africa and the third world.* New York: Orbis.

Buhlmann, W. (1978). *The mission trials*. Slough: St. Paul's.

Douglas, M. (1996). *Purity and danger*: An analysis of the concepts of pollution and taboo. New York: Routledge.

Ekwenche, O. (2015). The awakening & in-gathering of the Igbo landing-from a Hebrew Perspective. Retrieved 23rd July 2019. From www.google.com.

Elebeke, E. (2010). *Identify crisis: Who really are Nigerians? Export highlight nation's identity Management crisis*. (Central Database).

Eze, P. J. (2004).Religion, Africa and development: An anthropological perspective. In M.I Okwueze, (Ed.) *Religion and societal development, contemporary Nigerian perspective.* (pp. 49 -78)

Idowu, B. (1973). *African traditional religion*. London: SCM

Idowu, B. (1973). *Towards an indigenous church*. Ibadan: Universal press.

Ilo , S. C. (2008). *The face of Africa: Looking beyond the shadows*. Ibadan: Spectrum

Iwe, N. S. (1985). *Christianity and culture in Africa*. Onitsha: University press

John, S. S. (2015). Religion: A new struggle for African identity. *Journal of Philosophy, Culture and Religion.*17, 2.

Kanu, I. A. (2011). *Towards an African cultural Renaissance*. A paper presented at the International Conference on Arts and Cultural Studies. Organized by the Third World Congress on Research and Development.University of Port Harcourt, Rivers State. Nigeria, October 25th – 28th.

Kanu, I.A. (2013). African identity and the emergence of globalization.*American International Journal of Contemporary Research*, 3, 6, 34-41.

Lambek, M. (2002). *Anthropology of religion*. Malden: Blackwell.

Linton, R. (1945). Present world conditions in cultural perspective in R. Linton (Ed.) *The science of man in the world crisis*. Columbia: University Press.

Maathai, W. (2009).*The challenge for Africa: A new vision*. London: Frank Cass.

Mbiti, J. S. (1992).*African religions and philosophy*. Nairobi: East African educational.

Miller, C. &Yadice, G. (2002).*Cultural policy*. London: Sage.

Ngugi, W. N. (1981). *The river between*. London: Heinemann.

Nwabueze, C. (2010). *Value system, news, value and journalism ethics: The Nigerian experience. Perspective on communication and culture*.Uyo: BSM Resources.

Ogbukagu, I.N.T.(2008). *Traditional Igbo beliefs and practices. A study of the culture and peopleofAdaziNnukwu.* Enugu: Penmark.

Okolo, C. B. (1993). *What is to be African? Essay on African identity*. Enugu: Cecta.

Otto, R. (1958). *The idea of the holy*. Oxford: University press.

Parrinder, G. (1969). *Africa's three religion*. London: Sheldom press.

John Paul II.(1994). *Letter to families*. Vatican –Liberia: Edijuice.

Rodney, (2009). *How Europe underdeveloped Africa*. Abuja: Panaf.

Towse, R. (1999). Achieving public policy objectives in the Arts and heritage. In A. Peacock, R. Lide (Eds.) *Culturaleconomics and cultural policies* (pp. 143-165). Netherlands: Kluwer Academic.

Williams, R. (1976). *Keywords*. London: Croom Helm.

Covid-19 Pandemic: Nigeria's Economic and Business Disruptions

By

Akpoveta, Onajite Alexandra

and

Edheku, Ochuko Joy

Abstract*: This study explores the financial, economic and business implications of Covid-19 on the Nigerian State. In December 2019 the world has come to know a new virus now termed coronavirus, which causes the disease named COVID-19. It affected mainland China mostly and has spread to all continents of the world except Antarctica. Studies thus far have shown that the virus origination is in connection to a seafood market in Wuhan, but specific animal associations have not been confirmed. Reported symptoms include fever, cough, fatigue, pneumonia, headache, diarrhea, hemoptysis, and dyspnea. Preventive measures such as wearing of masks, hand washing hygiene practices, avoidance of public contact, case detection, contact tracing, and quarantines have been discussed as ways to reduce transmission. Currently, there is no specific antiviral treatment or vaccine that has proven effective; hence, infected people primarily rely on symptomatic treatment and supportive care. The rapid outbreak of the COVID-19 presents an alarming health crisis that the world is grappling with. In addition to the human impact, there is also significant economic, business and commercial impact being felt globally. As viruses know no borders, the impacts will continue to spread. This research adopted descriptive survey design and has collated and painstakingly analyzed updated information on Covid-19 pandemic and the various response measures by stakeholders. In fact, from the findings, the economy and businesses in Nigeria have been impacted and are already seeing Covid-19 disruptions.*

Keywords: Covid-19, Epidemiology, Transmission, Prevention, Effects.

Introduction

COVID-19 is a disease caused by a new strain of coronavirus. 'CO' stands for corona, 'VI' for virus, and 'D' for disease, while 19 refers to the year of outbreak. Formerly, this disease was referred to as 2019 novel coronavirus or '2019-nCoV.' The COVID-19 virus is a new virus linked to the same family of viruses as Severe Acute Respiratory Syndrome (SARS) and some types of common cold (WHO, 2020).

Different emerging and re-emerging viral infections have attacked different countries at different periods. Some are benign, whereas some are deadly with versatile clinical presentations. The involvement of the respiratory system may range from common cold to severe acute respiratory illness (SARI). According to the Chinese Centre for Disease Control and Prevention and World Health Organization reports, the outbreak of severe acute respiratory syndrome (SARS) and Middle-East respiratory syndrome (MERS) in the year 2002 - 3 and 2012 respectively caused deadly illness. According to Rahman & Bahar (2020) in December 2019 the world was introduced to a novel coronavirus severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; formerly called 2019-nCoV) causing coronavirus disease 2019 (COVID-19) after the outbreak of pneumonia in Wuhan, a city in Hubei Province of China. Initial clusters of pneumonia of unknown origin were reported to World Health Organization on

December 31, 2019. The WHO declared the COVID-19 outbreak a Global Health Emergency on January 30, 2020. WHO eventually declared it a pandemic on March 11 2020 (WHO, 2020).

In the Famous 2020 article to the centre for the study of the economies of Africa, Akanni & Gabriel (2020) brought the issue of Covid-19 implications on Nigerian Economy to the forefront of the CSEA agenda as follows:

> *In December 2019, a cluster of pneumonia cases from an unknown virus surfaced in Wuhan, China. Based on initial laboratory findings, the disease named Coronavirus disease 2019 (abbreviated as COVID-19), was described as an infectious disease that is caused by severe acute respiratory syndrome coronavirus 2. The COVID-19 outbreak has since spread to about 196 countries and territories in every continent, except Antarctica and one international conveyance across the globe. While there are ongoing efforts to curtailing the spread of infection which is almost entirely driven by human-to-human transmission, it has accounted for over **400,000 confirmed cases with over 18,000 deaths**.*

It is worthy of note that the Coronavirus belongs to a family of viruses that may cause various symptoms such as pneumonia, fever, breathing difficulty, and lung infection. These viruses are common in animals worldwide, but very few cases have been known to affect humans. The WHO announced that the official name of the 2019 novel coronavirus is coronavirus disease (COVID-19) (Adhikari et al. 2020). And the current reference name for the virus is severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). It was reported that a cluster of patients with pneumonia of unknown cause was linked to a local Huanan South China Seafood Market in Wuhan, Hubei Province, China in December 2019. In response to the outbreak, the Chinese Center for Disease Control and Prevention (China CDC, 2020) dispatched a rapid response team to accompany health authorities of Hubei province and Wuhan city to conduct epidemiological and etiological investigations. WHO confirmed that the outbreak of the coronavirus epidemic was associated with the Huanan South China Seafood Marketplace, but no specific animal association was identified. Scientists immediately started to research the source of the new coronavirus and the first genome of COVID-19 was published by the research team led by Prof. Yong-Zhen Zhang, on 10 January 2020. Within 1 month, this virus spread quickly throughout China during the Chinese New Year – a period when there is a high level of human mobility among Chinese people. Although it is still too early to predict susceptible populations, early patterns have shown a trend similar to Severe Acute Respiratory Syndrome (SARS) and Middle East respiratory syndrome (MERS) coronaviruses. Susceptibility seems to be associated with age, biological sex, and other health conditions (Zhou P et al. 2020).

Research is underway to understand more about transmissibility, severity, and other features associated with COVID-19. It appears that most of the early cases had some sort of contact history with the original seafood market. Soon, a secondary source of infection was found to be human-to-human transmission via close contact. There was an increase of infected people with no history of exposure to wildlife or visiting Wuhan and multiple cases of infection were detected among medical professionals (Gralinski & Menachery, 2019). It became clear that the COVID-19 infection occurs through exposure to the virus, and both the immunosuppressed and normal population appear susceptible.

It has been suggested that the population most at risk may be people with poor immune function such as older people and those with renal and hepatic dysfunction. The COVID-19 has been found to have higher levels of transmissibility and pandemic risk than the SARS-CoV, as the effective reproductive number (R) of COVID-19 (2.9) is estimated to be higher than the reported effective reproduction number (R) of SARS (1.77) at this early stage. Different studies of COVID-19 have estimated the basic reproduction (R0) range to be from 2.6 to 4.71. The average incubation duration of COVID-19 was estimated to be 4.8 ± 2.6, ranging from 2 to 11 days and 5.2 days (95% confidence interval, 4.1 to 7). The guidelines from World health Organization stated average incubation duration of 7 days, ranging from 2 to 14 days (WHO, 2019).

Coronaviruses are enveloped single-stranded RNA viruses that are zoonotic in nature and cause symptoms ranging from those similar to the common cold to more severe respiratory, enteric, hepatic, and neurological symptoms. Other than SARS-CoV-2, there are six known coronaviruses in humans: HCoV-229E, HCoV-OC43, SARS-CoV, HCoVNL63, HCoV-HKU1, and MERS-CoV (Su S, et al. 2016). Coronavirus has caused two large-scale pandemics in the last two decades: SARS and MERS. (Zaki AM, et al. 2012). To detect the infection source of COVID-19, China CDC researchers collected 585 environmental samples from the Huanan Seafood Market in Wuhan, Hubei Province, China on 1st January and 12th January 2020. They detected 33 samples containing SARS-CoV-2 and indicated that it originated from wild animals sold in the market. Then, researchers used the lung fluid, blood, and throat swab samples of 15 patients to conduct laboratory tests. These laboratory tests found that the virus-specific nucleic acid sequences in the sample are different from those of known human coronavirus species. Laboratory results also indicated that SARS-CoV-2 is similar to some of the beta (β) coronaviruses genera identified in bats, which is situated in a group of SARS/SARS-like CoV (Zhou P, et al. 2020). To conduct next-generation sequencing from bronchoalveolar lavage fluid and cultured isolates, researchers enrolled nine patients in Wuhan with viral pneumonia and negative in common respiratory pathogens. The results of this next-generation sequencing indicated that SARS-CoV-2 was more distant from SARS-CoV (with about 79% sequence identity) and MERS-CoV (with about 50% sequence identity) than from two bat-derived SARS-like coronaviruses-bat-SL-CoVZC45 (with 87.9% sequence identity) and bat-SL-CoVZXC21 (with 87.2% sequence identity). Studies also reported that COVID-19 S-protein supported strong interaction with human ACE2 molecules despite the dissimilarity of its sequence with that of SARS-CoV (Xu X et al. 2020).

Many domestic and wild animals, including camels, cattle, cats, and bats, may serve as hosts for coronaviruses. It is considered that, generally, animal coronaviruses do not spread among humans. However, there are exceptions, such as SARS and MERS, which are mainly spread through close contact with infected people via respiratory droplets from cough or sneezing. With regard to COVID-19, early patients were reported to have some link to the Huanan Seafood Market in Wuhan, China, suggesting that these early infections were due to animal-to-person transmission. However, later cases were reported among medical staff and others with no history of exposure to that market or visiting Wuhan, which was taken as an indication of human-to human transmission. The latest guidelines from World health Organization described three main transmission routes for the COVID-19: 1) droplets transmission, 2) contact transmission, and 3) aerosol transmission. Droplets transmission was reported to occur when respiratory droplets (as produced when an infected person coughs or sneezes) are ingested or inhaled by individuals nearby in close proximity; contact transmission

may occur when a subject touches a surface or object contaminated with the virus and subsequently touch their mouth, nose, or eyes; and aerosol transmission may occur when respiratory droplets mix into the air, forming aerosols and may cause infection when inhaled high dose of aerosols into the lungs in a relatively closed environment. In addition to these three routes, one study also indicated the digestive system as a potential transmission route for COVID-19 infection. Since patients had abdominal discomfort and diarrhea symptoms, researchers analyzed four data sets with single-cell transcriptomes of digestive systems and found that ACE2 was highly expressed in absorptive enterocytes from ileum and colon (Zhang H, et al. 2019).

The complete clinical signs and symptoms are not clear yet, as the reported symptoms range from mild to severe, with some cases even resulting in death. The most commonly reported symptoms are fever, cough, myalgia or fatigue, pneumonia, and complicated dyspnea, whereas less common reported symptoms include headache, diarrhea, hemoptysis, runny nose, and phlegm-producing cough (Huang C, et al. 2019). Patients with mild symptoms were reported to recover after 1 week while severe cases were reported to experience progressive respiratory failure due to alveolar damage from the virus, which may lead to death. Cases resulting in death were primarily middle-aged and elderly patients with pre-existing diseases (tumor surgery, cirrhosis, hypertension, coronary heart disease, diabetes, and Parkinson's disease).

Currently, no specific antiviral treatment has been confirmed to be effective against COVID-19. Regarding patients infected with COVID-19, it has been recommended to apply appropriate symptomatic treatment and supportive care. There are six clinical trials registered in both the International Clinical Trials Registry platform and the Chinese Clinical Trial Registry to evaluate the efficacy or safety of targeted medicine in the treatment or prognosis of COVID-19.

Studies have also explored the prevention of nosocomial infection and psychological health issues associated with COVID19. A series of measures have been suggested to reduce nosocomial infection, including knowledge training for prevention and control, isolation, disinfection, classified protections at different degrees in infection areas, and protection of confirmed cases. According to the WHO (2020), for the general population, at this moment there is no vaccine preventing COVID-19. The best prevention is to avoid being exposed to the virus. Air borne precautions and other protective measures have been discussed and proposed for prevention. Infection preventive and control (IPC) measures that may reduce the risk of exposure include the following: use of face masks; covering coughs and sneezes with tissues that are then safely disposed of (or, if no tissues are available, use a flexed elbow to cover the cough or sneeze); regular hand washing with soap or disinfection with hand sanitizer containing at least 60% alcohol (if soap and water are not available); avoidance of contact with infected people and maintaining an appropriate distance as much as possible; and refraining from touching eyes, nose, and mouth with unwashed hands. The WHO also issued detailed guidelines on the use of face masks in the community, during care at home, and in the health care settings of COVID-19. The Health care workers are recommended to use particulate respirators such as those certified N95 or FFP2 when performing aerosol-generating procedures and to use medical masks while providing any care to suspected or confirmed cases. According to this guideline, individuals with respiratory symptoms are to use face masks both in health care and home care settings properly following the infection prevention guidelines. As the global community, tries to grapple with the pandemic, countries of the world are confronted and

will be confronted with new socio-economic realities according to their unique standing. The socio-economic future that awaits Nigeria in the post convid-19 outbreak era is what motivates this research.

The COVID-19 Economic Impact & Pandemic Planning in Nigeria

As viruses know no borders, the impacts will continue to spread. In fact, 94 percent of the Fortune 1000 across the globe, and businesses in Nigeria have been impacted and are already seeing COVID-19 disruptions. We expect that the COVID-19 threat will eventually fade, as the Ebola, Zika, and Severe Acute Respiratory Syndrome (SARS) viruses have in recent years. However, social-economic impact will still be felt long after virus fades (KPMG, 2020). Nigeria, like all the nations of the world, is navigating uncertain times. For Nigeria, as an oil-dependent economy, this is a Twin Shock: COVID-19 Pandemic Global & Domestic Shock, and Oil Price Shock. Nigeria's vulnerabilities to the impact of these external shocks can be adduced to increased dependencies on global economies for fiscal revenues, foreign exchange inflows; fiscal deficit funding and capital flows required to sustain the nation's economic activities. With 3,175,207 coronavirus cases and 224,172 deaths globally, the world continues to battle the covid-19 pandemic.

Even before the outbreak, the outlook for the world economy and especially developing countries like Nigeria - was fragile, as global GDP growth was estimated to be only 2.5 percent in 2020. While many developing countries have recorded relatively fewer cases – Nigeria currently has 2,170 confirmed cases and 68 deaths as of writing (NCDC, 2020). The weak capacity of these countries is likely to exacerbate the pandemic and its impact on their economies.

GENERAL FACT SHEET – DATA AS AT MAY 1ST 2020

Table 1: States with reported laboratory-confirmed COVID-19 cases, recoveries and deaths

State	Confirmed Cases	Discharged Cases	Deaths	Total Active Cases
Lagos	1006	225	28	753
Kano	311	0	3	308
FCT	314	36	3	175
Gombe	92	0	0	92
Borno	69	0	6	63
Ogun	56	8	1	47
Bauchi	48	6	0	42
Edo	47	10	3	34
Sokoto	41	1	7	33
Katsina	40	6	2	32

Kaduna	35	6	1	28
Osun	34	18	3	13
Oyo	29	9	2	18
Delta	17	4	2	11
Akwa Ibom	16	10	2	4
Kwara	14	2	0	12
Rivers	14	2	2	10
Ondo	13	3	0	10
Ekiti	11	2	1	8
Zamfara	9	0	1	8
Taraba	8	0	0	8
Jigawa	7	0	1	6
Nasarawa	7	0	0	7
Bayelsa	5	0	0	5
Adamawa	4	0	0	4
Enugu	4	2	0	2
Yobe	4	0	0	4
Ebonyi	3	0	0	3
Niger	3	0	0	3
Abia	2	0	0	2
Imo	2	0	0	2
Kebbi	2	0	0	2
Anambra	1	1	0	0
Benue	1	0	0	1
Plateau	1	0	0	1
Total	**2170**	**551**	**68**	**1751**

Nigeria announced its first case of Covid-19 on 27th February 2020 and since then; there has been an increase in cases daily. While it is too early to compare with other countries, the speed of daily cases is used as an indicator of how quickly the virus is spreading or being contained. This will, of course, depend on how accurate and timely the Nigerian government

makes its daily announcements. Initially, most Nigerian cases have come from international travelers arriving in Lagos and Abuja.

Nigeria is in a dangerous situation. Already faced with the likelihood of lower-for-longer oil prices, a global economic shutdown is particularly harmful to a country reliant on external capital and imported raw materials. Meanwhile, increasing cases of COVID-19 within the country foreshadows a partial shutdown of the local economy. This combination of global recession and local pandemic will only expose the structural defects in the Nigerian economy, some of which are the result of flawed policy-making. Notwithstanding the worrying health prospects as COVID-19 spreads within the country, it is clear that the economic impact of the virus will be long and severe for Nigeria. Consumer demand will dry up during a local economic shutdown, rendering businesses unable to pay salaries or meet their debt obligations. Left alone, many will not survive the next 12 months. Unfortunately, the policy response so far is not aggressive enough to provide the cushion the economy needs.

Early Impact of COVID-19 on the Nigeria's Economy

Domestic Purchasing Managers' Index (PMI) data 2 (conducted by the Central Bank of Nigeria) for March already shows how the economy is being affected. Manufacturing PMI fell from 58.3 in February to 51.1 in March, the lowest value since April 2017. Meanwhile, non-manufacturing PMI (including services and agriculture) fell below 50 for the first time since April 2017, the month before the CBN opened a new floating FX window and ended Nigeria's FX crisis (CBN, 2020). Worryingly, across manufacturing (five categories) and services (four categories), employment level was the worst-performing category—showing early signs of how local jobs are being affected. The most alarming thing about this data is that the CBN admitted that the PMI survey was carried out before the COVID-19 situation escalated, meaning that future months will be much worse.

Nigeria would be little affected by the imminent global recession if it was a closed economy with closed borders. However, this is impractical in today's global climate so the Nigerian economy will suffer significantly in the wake of the global pandemic—regardless of the domestic epidemiological path of COVID-19 and the steps taken to curb the spread. The effects on the Nigerian economy are analyzed through the primary channels of an external economic shock:

* Investment flows
* Oil prices
* Trade in goods
* Trade in services

Investment flows in Nigeria:

As the global economy shuts down, investment in Nigeria will dry up as foreigners rush to safer assets like U.S. government bonds. The Institute of Internal Finance estimates that foreign investors took $80 billion out of emerging markets like Nigeria in February and March. Meanwhile, S&P Ratings, one of the three main global ratings agencies, recently downgraded Nigeria's sovereign debt credit rating to 'B-', which would further discourage investment in the country. Accordingly, Fitch Global Rating-Hong Kong has also downgraded Nigeria's Long-Term Foreign-Currency Issuer Default Rating (IDR) to 'B' from B+. The outlook is Negative.

We can expect all types of investment to drop. Even remittances, usually praised for remaining resilient during economic downturns, will be lower as the diaspora also experience

tough times. There are already signs that this investment exodus has begun in Nigeria. First, Société Générale, one of the largest investment banks in Europe, advised its clients not to buy Nigerian government debt in early February before COVID-19 escalated, citing concerns over an unsustainably high exchange rate. And on the 19th of March, the Central Bank of Nigeria tried to sell its exclusive OMO securities to foreign investors. The entire OMO auction ended with no sale as foreign investors demanded up to 18% interest on a one-year OMO bill, setting a high bar at which they would be willing to give up their dollars. The lesson here is that few foreign investors will be willing to take positive bets on the Nigerian economy, leaving us reliant on domestic capital for investment in the medium-term, and indicating that dollars will remain relatively scarce for a while.

COVID-19 Pandemic, Oil Prices and the Nigerian Economy

As the global economy shuts down, oil demand plunges, the International Energy Agency (IEA), the leading global independent energy agency, expects global oil demand to fall year-on-year for the first time since the 2009 financial crisis. At the same time, we can expect an oil supply glut following the breakdown in the quota agreement between Saudi Arabia and Russia. For three years, the Saudi-led Organisation of Petroleum Exporting Countries (OPEC) have propped oil prices by agreeing to limit production along with Russia, Mexico, and a few others. This OPEC+ cabal largely achieved its objectives as oil prices rebounded from a low of $26 in January 2016 to as high as $85 in October 2018. Now, we can expect a free-for-all in oil production. Russia rejected Saudi Arabia's request to deepen production cuts, adamant that lower oil prices bankrolled shale oil producers in the United States. In response, Saudi Arabia tore up the agreement (that ended in March) and promised to open its oil pumps. (Premium Times, 2020)

The resulting demand-supply imbalance will deeply affect Nigeria, which has already been struggling to sell her oil: Nigeria's main crude oil grades are currently being sold at discounts not seen even during the 2009 financial crisis. The Saudi-Russia spat is a critical dynamic as it means that the COVID-19 pandemic is not the only factor holding down oil prices, and they may be lower for longer. For oil prices to recover, Nigeria would need a quick solution to the COVID-19 outbreak and major oil producers to agree to scale back production. Falling oil prices affect the Nigerian economy in two direct ways: Government finances and foreign exchange.

The impact on Federal Government finances

The oil price crash has a devastating effect on the Nigerian economy as oil revenues have accounted for roughly 60% of federal government revenues over the last ten years. Unsurprisingly, the Ministry of Finance has taken steps to recalibrate planned spending amid the oil price crash and COVID-19 outbreak, mainly by announcing cuts to projected spending. This oil price and government finances story is very important because it limits how the government can respond to the COVID-19 crisis (Stears Data, 2020)

Nigeria is not alone in this situation; African finance ministers have suggested that the continent needs almost $44 billion worth of debt-servicing waivers in order to properly mitigate the economic damage of the pandemic. A debt relief would temporarily remove the burden of interest payments and allow governments to divert scarce resources towards stimulating the

economy. The likes of the IMF and World Bank are in support of the idea, and the IMF, in particular, has pledged to deploy its $1 trillion lending capacity to support ailing countries. Over 80 countries have so far asked the IMF for help (including Nigeria and Ghana).

Nigeria had generally shunned the institution in the last half-decade but borrowing from multilateral organisations would be the best way of raising emergency funds, especially if their bailout packages include an agreement that western creditors are happy to delay interest payment collections. This is a bad time for Nigeria to try and raise commercial debt (either naira or dollar-based) so willing lenders like the IMF—or China—cannot be overlooked.

The Impact on the Local Currency

A bearish oil market is bad news for the exchange rate as fewer dollars flow into the economy, particularly in a global recession when external investment drops. It became obvious that the naira would go through a tough period once the OPEC+ deal below up and oil prices crashed. So far, the CBN has shown an impressive willingness to avoid past mistakes and not try to fight the market. The apex bank has adjusted the official rate from ₦305/$1 to ₦360/$1 and increased the rate at which it sells currency to foreigners from ₦365 to ₦380 (Reuters, 2020). In the past week, the naira has been selling for less and less in the main flexible foreign exchange window (the "Investors & Exporters" window) and more adjustment will occur as the COVID-19 crisis deepens in the country. The CBN does not have the dollar ammunition to hold the naira at its desired rate so moving closer towards a floating rate—or devaluing the currency further—would make sense.

There are few ideal occasions for Nigeria to devalue the naira but two conditions might prevent a large depreciation or major volatility in the exchange rate:

1. Dollar demand will be much lower for the foreseeable future. For one, petroleum imports usually account for 20-30% of physical imports and oil prices are much lower so fewer dollars will be required to bring in petrol. Moreover, travel restrictions mean services like education and health will have lower dollar demand and these usually account for a lot of the pressure on the currency in the Bureau de Change and black market segments of the market. Finally, a slowdown in the global economy means there's less activity for people to use their dollars.
2. The CBN already has multiple restrictions on foreign exchange that manage the demand for dollars. People that want to import goods like cement and fertiliser cannot get dollars through official channels. Although these restrictions create structural inefficiencies, they help the CBN manage dollar demand.

Nevertheless, the drop in dollar supply will last longer than the fall in demand. Oil prices will remain low until major producers agree to output cuts while the adverse economic effects of COVID-19 will keep investors away for a prolonged period. Looking at the trend in similar emerging markets, further naira depreciation is likely. In all, Nigerians should get used to a weaker currency and scarcer dollars. The precise extent of either of those two depends on how much the CBN prioritizes maintaining a "strong" naira. Either way, businesses can expect to feel a more painful foreign exchange pinch.

Impact of Covid-19 on Nigeria's Foreign Trade in Goods

Nigeria's imports and exports will be directly affected by the shutdown of the global economy and indirectly affected by the depreciation of the naira against the dollar and other major currencies. Businesses ought to amend their strategies in light of the changing international dynamics. Although most of the changes are negative, opportunities emerge—or

can be discovered in difficult times. This idea was well-articulated by Rahm Emanuel, a former Chicago Mayor, in his response to the COVID-19 pandemic, when he urged governments to "never let a good crisis go to waste". (National Bureau of Statistics, 2020).

Exports

Over 95% of Nigeria's exports are oil & gas related products so the export sector will primarily be affected by the oil crisis. At the same time, it is important to note that Nigeria's main trading partners have been badly affected by COVID-19, and the same is true for the buyers of Nigeria's largest agricultural exports. Naturally, this means that Nigerian exporters will not be able to exploit the resulting price competitiveness of the naira depreciation in the near term. As corporations abroad struggle amid a global demand slump, the strategy of diversifying customers to international clients (used during the 2016 recession) is less potent for now.

Longer-term, a weaker naira will make Nigerian exports more competitive so expanding local capacity in strategic goods can really pay off, whether this expansion is done through backward integration or supporting local producers to become more competitive.

Table A: COVID-19 Ravages Nigeria's Main Trading Partners

Sn	Country	Numbers Of Cases
1.	India	657
2.	Spain	47,611
3.	France	25,591
4.	Netherlands	6,438
5.	Ghana	68
6.	South Africa	709
7.	Germany	37,323
8.	Italy	74,386
9.	Indonesia	790
10.	Canada	2,792

* Based on exports for the fourth quarter of 2019. As at 29/03/2019

Source: National Bureau of Statistics, John Hopkins University Coronavirus Resource Centre

Table B: Agriculture Trading Partners Are Not Unscathed

Product	Export Value	Number of Cases
Sesame seeds		
India	6.6 billion	657
China	5.4 billion	81,661
Turkey	5.3 billion	1,872

Japan	4.4 billion	1,307
Vietnam	2.9 billion	141
Fermented Cocoa beans		
Netherlands	12.3 billion	6,438
Germany	5.9 billion	37,323
Belgium	2.8 billion	4,937
Indonesia	1.4 billion	790
Estonia	0.9 billion	404
As at 29/03/2019 Source: National Bureau of Statistics, John Hopkins Coronavirus Resource Centre		

Imports

It is important to separate Nigeria's imports into finished goods and intermediate goods and analyse the impact of each in turn. Nigeria imports finished goods ranging from fast-moving consumer goods and transport goods to food & beverage products. These account for roughly 40% of imports in an average a year. As a result, the supply shock from a global economic shutdown will be acute, especially as Nigerian imports predominantly come from countries like China that have been severely hit by Covid-19.

This initial acute supply shock may be temporary (factories in China are already re-opening) but production levels will not recover fully for a while. Moreover, logistic obstacles to trade will persist as long as the virus and precautions taken by governments remain prevalent. Finally, as suggested earlier, the naira will weaken further, making imports more expensive. The ultimate result is that imported finished goods will be scarcer and more expensive for Nigerians, introducing another opportunity to ramp up local industrial capacity and import substitution.

Longer-term, a weaker naira will make Nigerian exports more competitive so expanding local capacity in strategic goods can really pay off, whether this expansion is done through backward integration or supporting local producers to become more competitive.

The success of this approach will be limited as Nigeria tackles a domestic COVID-19 pandemic and partially shuts down its economy, but the Central Bank of Nigeria has committed as much as ₦1 trillion to fund local manufacturing. However, it is important to note that whilst cheap credit is a boom to local manufacturing, legacy infrastructural and institutional obstacles like inconsistent power supply and an inefficient bureaucracy must be addressed for Nigeria's local industry to fully exploit this crisis. Businesses ought to be tempted to fill the gap that will be created by lower imports, but governments must create an enabling environment if they are to succeed.

Nigeria also imports a lot of goods that are used for local production. These can be capital goods like refinery equipment, intermediate goods like fertiliser, or raw materials like sugarcane. These types of imports are arguably more important, accounting for almost 60% of imports on average. They are also crucial for any local industrialization strategy given the dearth of local substitutes.

For example, although Nigeria imports sugar, it has a growing local capacity that may one day reduce the need for imports. But even local sugar production relies on imported sugarcane which is not grown at commercial scale in Nigeria. In the last quarter of 2019 alone, Nigeria imported ₦60 billion worth of sugarcane from Brazil for domestic sugar refineries. Any disruption to this type of import would negatively affect local production and increase the need for imported sugar just when it is scarcer and more expensive. In this case, the sugarcane industry has been listed as an essential service in Brazil (due to its links to fuel production) so it should suffer fewer disruptions than other intermediate goods.

In summary, even local production is vulnerable to reductions in imports. Once again, businesses may focus on local production of raw materials, intermediate goods and capital goods, although this is usually more difficult than producing consumer goods. Again, the government has a bigger role to play here than the CBN in ensuring that producing locally is cheap, and that means improving infrastructure and institutions ought to be a priority in the medium term. Initiatives like the ₦1.5 trillion private sector infrastructure fund set up by the CBN are laudable but will be ineffective unless accompanied by material changes in the general business environment.

Impact on Nigeria's Foreign Trade in Services:

Nigeria's external trade is not restricted to oil, manufactured goods and agriculture crops. Activities like healthcare and financial services are also traded across the border; these are equally disrupted by the global economic shut-down.

Exports

The global demand slump erodes the competitive benefits of a weaker currency. In addition, reduced investment in Nigeria means that professional services, lawyers, and others will be in less demand during the period.

Imports

Nigeria's main service imports are travel, education and health services; together, these accounted for 30% of services imports in 2019. All these services will be hard hit by travel restrictions and a weaker currency. More generally, foreign services will become more expensive, forcing businesses to switch to local substitutes or go without them when there are no alternatives.

One probable legacy of the current pandemic is that developed countries will strengthen their digital economies and take their economies more offline. For example, universities will invest more in virtual teaching infrastructure and techniques.

This is good news for Nigerian businesses as the more global economies are embedded online, the easier it is for Nigerian businesses to plug in and buy or sell services. Therefore, Nigerian businesses have the opportunity to develop or exploit infrastructure or systems that improve remote service delivery. We can see this for in-demand services like education. As international universities do more teaching online, there is an opportunity to bring this teaching closer to students based in Nigeria.

Nigeria's Fiscal Response to Covid-19 Pandemic:

The Nigerian government has responded to the COVID-19 pandemic and its expected economic effects through a range of policies. The main policy levers used are fiscal policy,

petroleum prices, and monetary policy. This article analyzed each aspect of the government's economic response and outlined the repercussions for different industries and businesses.

Fiscal Stimulus and COVID-19 Crisis

In comparison to the measures rolled out overseas, Nigeria's fiscal response has been restricted by lack of funds. The government is set to pass an Emergency Economic Stimulus Bill 2020, but the provisions of the bill are weak. The strongest component is job creation as any company that does not retrench staff between 31st of March and 31st of December (except for reasons related to a breach of Labour Act) will get a 50% tax refund. Although this incentivizes businesses to retain their workers, it does not give them the funds to do so as money promised in the future is far less helpful here than money given today. Moreover, any rewards based on tax refunds are less effective in a recessionary environment as businesses are more likely to make operating losses.

Other minor provisions are included in the stimulus bill, including permission for individuals to defer mortgage payments under the National Housing Fund (NHF) and import waivers on medical supplies and related products. Even in regular times, these measures would be limited. For example, the total value of loans under the NHF was just over ₦40 billion in 2019, compared to ₦105 billion in outstanding mortgages, which is also a very small amount.

At the same time, the Federal Government has reduced its projected expenditure in the 2020 Budget due to the fall in oil prices. Capital expenditure (Capex) was cut by 20% and recurrent expenditure was cut by 25%. The government also enacted a hiring freeze (except for essential services like health and security) and plans to review existing tax waivers and social intervention schemes. Meanwhile, the Ministry of Finance made other adjustments to revenue projections beyond oil prices; the ministry anticipates lower customs revenues as international trade volumes fall and lower privatization proceeds as fewer willing buyers acquire government assets.

There are two ways to look at the changes made by the government and none of them is flattering. The first is that the changes are superficial because they would not affect reality. In 2019, the government spent just 58% of its Capex budget; taking away 20% of the 2020 Capex budget is immaterial as it would not have been spent anyway. The story is that the government was not going to meet its 2020 Budget projections so cutting these would not really constrain what it will spend this year.

The second way to look at it is that the government should be looking to spend more, not less; at this time, the Nigerian economy needs stimulus, not austerity. The fiscal realities outlined earlier may convince the government to tighten its belt, but the economy will suffer much more if this happens. The International Monetary Fund described the appropriate economic response to the COVID-19 crisis as ensuring that "that people will not die because of a lack of money" so governments have the responsibility to ensure that businesses and individuals are catered for during this period. Nigeria's limited fiscal wiggle room should not impede the government from arresting the inevitable economic slide caused by the COVID-19 pandemic.

Petroleum Price Modulation

The decision to reduce premium motor spirit (PMS) pump prices from ₦145/litre to ₦125/litre would normally be positive for Nigerian businesses as transport and energy costs fall in tandem, though not by as much as you would expect since transport prices are sticky

downwards (have you seen a bus conductor reduce fares?). However, lower transport prices are less important when the economy is partially shut and people stay indoors-meaning that the main benefit of the price cut will be the lower cost of private power generation.

At the same time, the price reduction introduces a notable risk of product scarcity at petrol stations. The government has asked stations to retail the product at ₦125/litre even though marketers acquired their stock at ₦145/litre before the price change.

Moreover, the government missed the opportunity to raise revenues by retaining the ₦145/litre pump price and collecting the extra ₦20/litre in the form of taxes. This would have been particularly useful given the current state of government finances and would have been the more progressive approach. Wealthier Nigerians use more petroleum products so will benefit more from the price reduction, whereas the government could have distributed the additional tax revenues as cash transfers to those most affected by COVID-19 pandemic.

Nigeria's Monetary Policy Response to Covid-19 Crisis:

Given the financial constraints faced by the Federal Government, the Central Bank of Nigeria (CBN) has been left to do the heavy lifting of protecting the economy from a COVID-19-induced crash. Although the CBN has announced a range of policies to mitigate the crisis and will likely roll out a few more, the article shows why these policies are limited by the CBN's role as a monetary institution, rendering it incapable of providing the fiscal support needed in such unprecedented economic times. Understanding this reality is important for understanding the extent of the domestic economic interventions and how much individuals and businesses should expect to be shielded from the imminent economic downturn.

Central Bank of Nigeria's initiatives

The Federal Government may be banking on the CBN to mitigate the economic fallout of the COVID-19 pandemic. Below is the policy measures rolled out by the CBN in the last few weeks:

- **Loan moratorium:** Any individual or business with a CBN-related loan already under moratorium (i.e. the debtor has permission to delay payment) has the option of deferring payment for another year. The objective of this policy is to shift debt burdens into the future—a useful step when people are short of cash today.
- **Interest loan reduction:** All interest rates on CBN intervention loans have been cut from 9% to 5%. The objective of this policy is to reduce the debt burden on those who took out intervention loans, but arguably does not go far enough as a 5% interest rate is still a material liability during an economic crisis.
- **Manufacturing sector intervention:** The CBN has set aside ₦1 trillion ($2.78 billion) to support local manufacturing and boost import substitution.
- **Credit support for other sectors:** The CBN has created a ₦50 billion ($138.89 million) Credit Facility (TCF) to households, Small and Medium Enterprises most affected by the pandemic.
- **Credit support for healthcare:** The CBN has set up a credit line up to ₦100 billion ($277.78 million) for any individuals or businesses in healthcare and health innovation, e.g. pharmaceuticals, health facilities, labs etc.
- **Infrastructure fund:** The CBN has initiated a ₦1.5 trillion private sector infrastructure fund to finance critical infrastructure projects.

An Assessment of the CBN COVID-19 Policy Initiatives

The Central Bank has received a lot of criticism from economic quarters in recent years, mainly because of its management of the exchange rate. In terms of its response to COVID-19, however, it has generally done as much as it can. The main thing a central bank can do is provide liquidity to the economy by making it easier and cheaper for individuals and firms to borrow. Only governments can ensure that individuals and businesses remain solvent through the crisis. Only the government can provide a genuine economic safety net to cushion the blow of this "Act of God" event.

Here, is the assessment of the CBN policies in response to the pandemic.

*** Size of stimulus**

Putting all the credit facilities the Central Bank has made available or promised gets us somewhere between ₦1.2 trillion and ₦3.5 trillion or 2-3% of the economy. This pales in comparison to measures enacted elsewhere. For example, in the United Kingdom, the Bank of England has already pumped £200 billion (roughly 7% of GDP) into the economy and the government's loan guarantee programme is equivalent to over 10% of national GDP. Even in Australia, the Federal Reserve Bank created a short-term lending facility for businesses that is equivalent to 4% of its annual GDP. All in all, even if ₦3.5 trillion additional credit finds its way to Nigerian individuals and businesses, it would fall far short of measures taken overseas.

*** The big winner**

There is one clear winner from the CBN policies: the manufacturing sector. The apex Bank has set up a ₦1 trillion support facilities for local manufacturing, a fantastic idea as it is a sector that will be particularly hit by a weaker currency and disruptions to global supply chains. More importantly, boosting local production is a necessary long-term response to the COVID-19 crisis and will set up Nigeria quite nicely to take full advantage of the African Continental Free Trade Area agreement.

*** The big loser**

Early indications from abroad suggest that service industries are likely to be harder hit by the COVID-19 pandemic, particularly in the event of a domestic lockdown. Both global and domestic PMI readings are much lower for service industries.

Comparison of Manufacturing and Services PMI for March 2020

	Manufacturing	Services
Eurozone	44.8	28.4
Germany	45.7	34.5
France	42.9	29.0
UK	48.0	35.7
Japan	44.8	32.7
Australia	50.1	39.8
United States	49.2	39.1
*Nigeria	51.1	49.2

*Nigeria Services PMI includes agriculture

Source: HIS Market, Central Bank of Nigeria

Furthermore, the service sector is the largest part of the Nigerian economy, accounting for roughly 60% of GDP and employing 45% of all workers. Real Estate and Trade alone account for more than 20% of national GDP. Most SMEs also operate within the service industry and will need help in navigating the crisis. This is worrying because apart from selected industries (e.g. aviation), the announced initiatives do not directly cover service industries and the workers employed there. Even if the entire ₦50 billion Targeted Credit Facility went to the services sector, that would be less than 0.5% of services GDP. At the moment, this lack of support for service industries is a glaring hole in Nigeria's COVID-19 response and could lead to severe economic pain.

Nigeria's Insufficient Economic Response

As discussed earlier, Nigeria's fiscal restraints means that it will not act as forcefully to avoid the economic repercussions of either the global economic downturn or a local pandemic. To a large extent, businesses must prepare to fend for themselves and find ways to survive. Unlike richer economies, Nigeria will not be able to put the economy on ice until things get better so businesses and individuals can expect limited support in the event of a lock-down. In particular, businesses can expect a lengthy liquidity crunch. Accessing credit facilities might help with the liquidity crunch but there needs to be a clear plan on how to manage these liabilities in the medium-term as the economic impact will outlast the viral pandemic.

All of this means that businesses can expect recessionary conditions for a prolonged period, so non-essential products will be even harder to sell. On the plus side, Nigeria recently endured a recession, so we know a little bit about how consumers behave in a recessionary environment. For example, the 2016 recession and foreign exchange prices made domestic consumers particularly price-sensitive and encouraged them to switch from expensive brands to cheaper products. Those habits have been hard to shift, and many consumer goods companies have altered their product mix in response. In the same vein, businesses can expect changes in consumer trends to persist beyond the pandemic. Early observations from China suggest that people are favouring more indoor-based consumption than before; some of it may be out of concern over their safety, some of it is status quo bias that makes it hard for people to switch away from newly ingrained habits, and some of it is that consumers discovered that they prefer the changes they have made.

Conclusion

The covid-19 pandemic is a wake-up call to policy-makers as the unusual and unprecedented nature of the crisis has made it impossible for citizens to rely on foreign health services and more difficult to solicit for international support given the competing demand for medical supplies and equipment. A more integrated response spanning several sectors- including the health, finance, and trade sectors- is required to address, tame or cushion structural issues that makes the country less resilient to shocks and limit its range of policy responses. In the long term, tougher decisions need to be made, including but not limited to diversifying the country's revenue base from oil exports and improving investments in the healthcare sector in ensuring that the economy is able to recover quickly from difficult or precarious conditions in the future.

References

Adhikar et al. (2020) Infectious Diseases of Poverty. 9:29. Retrieved from https: doi.org/

10.1186/540249-020-00646-x.
Akanni OL et al. (2020) The Implication of Covid-19 on Nigerian Economy, Centre for the study
of the economies of Africa (CSEA) March 25, 2020. Retrieved from cseaafrica.org/the-implication-of-covid19-on-the-nigerian-economy/#_ftnref1.
Bloomberg (2020) Africa Needs $100 Billion Stimulus to Combat Virus, 23 March 2020. Retrieved from https://www.bloomberg.com/news/articles/2020-03-23/africa-needs-waiver-on-44- billion-interest-bill-to-combat-virus.
China CDC (2020) 2019 Novel coronavirus, Wuhan, China. Retrieved from https://www.cdc.gov
/ Coronavirus/2019-nCoV/summary.html.
Central Bank of Nigeria (2020) Purchasing Managers' Index Report for March 2020. Retrieved from https://www.cbn.gov.ng/Out/2020/STD/MAR%202020%20PMI%20Report.pdf.
Central Bank of Nigeria (2020) CBN Policy Measures in Response to COVID-19 Outbreak and
Spillovers, 16 March 2020. Retrieved from
https://www.cbn.gov.ng/Out/2020/FPRD/CBN%20POLICY%20MEASURES%20IN%20RESPONSE%20TO%20COVID19%20OUTBREAK%20AND%20SPILLOVERS.pdf
Central Bank of Nigeria (2020) Guidelines for the Implementation of the ₦50 Billion Targeted Credit Facility, 23 March 2020. Retrieved from
https://www.cbn.gov.ng/Out/2020/FPRD/N50%20Billion%20Combined.pdf.
Central Bank of Nigeria (2020) Guidelines for the Operations of the ₦100 Billion Credit Support for the Healthcare Sector, 25 March 2020. Retrieved from https://www.cbn.gov.ng/Out/2020/FPRD/healthcareintervention.pdf.
Chukwuka Onyekwena, Mma Amara Ekeruche (2020) Understanding the Impact of the Covid-19 outbreak on the Nigerian Economy, Brookings. Wednesday, April 8, 2020
Fauci et al (2020) Covid-!9- Navigating the Uncharted. New England Journal of Medicine. 382:1268-1269. Doi: 10.1056/NE/JME 2002387
Gralinski LE, Menachery VD. (2020) Return of the coronavirus: 2019-nCoV. Viruses.12:135.
Huang C, Wang Y, Li X, Ren L, Zhao Jianping, Hu Y, et al. (2020) Clinical features of patients
infected with 2019 novel coronavirus in Wuhan, China. Lancet. 395:497–506. Retrieved from https://doi.org/10.1016/S0140–6736(20)30183–5.
International Monetary Fund (2020) Policy Steps to Address the Corona Crisis. Retrieved from https:// www.imf.org/~/media/Files/Publications/PP/2020/English/PPEA2020015.ashx.
International Monetary Fund (2020) Fiscal Policies to Protect People During the Coronavirus Outbreak, 5 March 2020. Retrieved from https://blogs.imf.org/2020/03/05/fiscal-policies-to-protect-people-during-the-coronavirus-outbreak/.
KPMG (2020) COVID-19: Economic Impact & Pandemic Planning. Retrieved from https://home.kpmg/ng/en/home/insights/2020/03/covid-19--economic-impact---pandemic-planning.html
Lu H, Tang CW, Tang Y.(2020) Outbreak of pneumonia of unknown etiology in Wuhan China:
the mystery and the miracle. J Medl Virol.; doi: https:// doi.org/10.1002/jmv/25678.
National Bureau of Statistics (2020) Foreign Trade in Goods Statistics (Q4 2019). Retrieved from http://nigerianstat.gov.ng/download/1067.

NCDC (2020) An update of COVID-19 outbreak in Nigeria. 01 May 2020. Retrieved from https://ncdc.gov.ng/diseases/sitreps/?cat=14&name=An%20update%20of%20COVID-19%20outbreak%20in%20Nigeria

Premium Times (2020) Coronavirus: Nigeria cuts oil benchmark to $30, slashes capital budget by 20%, 18 March 2020. Retrieved from https://www.premiumtimesng.com/coronavirus/382605-coronavirus-nigeria-cuts-oil-benchmark-to-30-slashes-capital-budget-by-20.html

Rahman S, Bahar T. (2020) Covid-19: The New Threat, International Journal of Infection. 7(1):
e102184. Doi:10.5812/iji.102184

Reuters (2020) Coronavirus Very Likely of Animal Origin, no sign of Laboratory manipulation:
WHO. April 21, 2020/11:26am

Stears Business (2019) AfCFTA: A free trade agreement with no industries to benefit, 20 December 2019. Retrieved from https://www.stearsng.com/article/acfta-a-free-trade-agreement-with-no-industries-to-benefit.

Stears Business (2020) Nigeria's economic response to COVID-19, 26 March 2020. Retrieved from https://www.stearsng.com/article/nigerias-economic-response-to-covid-19.

StearsData (2020) Impact of Covid-19 on the Nigerian Economy, 26 March 2020. Retrieved from https://www.stearsng.com/article/the-impact-of-covid-19-on-nigerias-economy.

World Health Organization (2019) Middle East respiratory syndrome coronavirus (MERS-CoV).
2019. Retrieved from https://www.who.int/emergencies/mers-cov/en.

Xu X, Chen P, Wang J, Feng J, Zhou H, Li X, et al. (2020) Evolution of the novel coronavirus from the ongoing Wuhan outbreak and modeling of its spike protein for risk of human transmission. Sci Chin Life Sci.; https://doi. org/10.1007/s11427-020-1637-5.

Zaki AM, Boheemen SV, Bestebroer TM, Osterhaus ADME, Fouchier RAM. (2012) Isolation of
a novel coronavirus from a man with pneumonia in Saudi Arabia. N Engl J Med.;367:1814–20.

Zhou P, Yang XL, Wang, XG, Hu B, Zhang L, Zhang W, et al.(2020) Discovery of a novel coronavirus associated with the recent pneumonia outbreak in humans and its potential bat origin. bioRxiv. doi: Retrieved from https://doi.org/10. 1101/2020.01.22.914952.

A Neglected Historio-Therapeutic Response to Covid-19 Pandemic: African Ebers Papyrus Revisited

Godwin Onuh ODEH

Abstract
Colonialism has grave consequence on Africa given the western values it installed and the dislodging of African values; if not, how could one explain decades of importation of vaccines for treatment of the bulk of African population without looking inward to home-grown remedies. This is what fires the attempt to explore the relevance of Ebers Papyrus that appeared to have been undermined in Africa's response to Covid-19 pandemic. The paper finds that Ebers Papyrus is one of the oldest medical documents developed by the Egyptians dating to about 1500 BCE. It has over seven hundred prescriptions and remedies for various ailments. Most of the known symptoms of Covid-19 pandemic are sufficiently captured in the Ebers Papyrus. The therapeutic significance of the Papyrus appears to have been undermined since the outbreak of the pandemic probably because of colonial disorientation and disarticulation. Against this background, it makes case for indigenous medicines in times of epidemics breakouts since foreign drugs and vaccines are not better than African products. It further finds that no single discipline has answers to societal challenge that appears cumulus and multi-dimensional in nature. Thus, scholars and scientists across disciplinary backgrounds should step forward in the curious search for solution to Covid-19 within the context of African medicines. The paper concludes that African governments, businessmen and well wishers should join hands and support researches for further investigation of prescriptions of the famous Ebers papyrus. This might be what the Madagascar did that was to lead to its claim discovery of Covid-19 pandemic therapy.

Keywords: Ebers Papyrus, Therapeutic, Covid-19, Corona virus and Pandemic

Introduction

Africa is the second largest continent occupying about one-fifth of the world land mass. It is popularly refers to as the "Mother Continent", because it is the oldest having been peopled by humans dating to over five million years ago.[2] African States are fifty four, with Nigeria, known as the largest political entity. Around early 1960s, when several countries of Africa were coming out of colonial holds, its population was about 300,000,000[3] , and according to the United Nations, as at January 2020, her population stands at about 1,326,906,180, which is equivalent to 16.72 per cent of the world total.[4] Despite the richness of the continent and its rich history of civilization that dates to several millennia, its people are subjected to severe

[2] *Africa,* National Geographic: https://www.nationalgeographic.org.

[3] N D. Palmer and H C.Perkins, *International Relations.*Third Revised Edition, India: A. I B.S Publishers, 2010,503

[4] *Population of Africa*, Worldometer: https://www.worldometers.info.

hardships as a result of underdevelopment caused by poor governance and leadership. Arising from this, the continent found itself in a footnote position receiving the poisons of globalization. The most dangerous of the poisons is in the area of health. According to World Health Organization (WHO), Africa carries about 25 per cent of the world diseases burden, but shares only 1 per cent of the global health expenditure. More worrisome is the revelation that, it manufactured less than 2 per cent of the medicines consumed in the continent, indicating that the remaining came from American, Asian and European countries. One of the deadly and poisonous health is the Covid-19 pandemic that the people of the continent and the world have been fighting since December, 2019[4]. The efforts of nations to finding remedies to the pandemic and the need to develop an "African made" pharmaceutical response and other related and subsequent health emergencies brings to the fore the purpose of this paper. For a comprehensive discourse the paper is structured into five sections. One; is the introduction, two; conceptual clarifications, three; Corona virus pandemic in historical perspective, four; the relevance of Ebers papyrus as therapeutic response to Covid-19 pandemic, and the conclusion.

Conceptual Clarifications

This section puts into perspective the underlining concepts of Ebers Papyrus, therapeutic, Covid-19 and pandemic. Papyrus is derived from a plant, *cyperus* papyrus[5], also known as paper plant. The plant was popularly grown in ancient Egypt for its stem and central pith cut into thin, pressed together and dried to produce smooth thin writing surface. Apart from paper document or scroll it produces, papyrus was used in the production of cloths, sails, mats and cords. The famous hieroglyphics, (picture writing), was the exclusive preserve of priests. Consequently, the need to keep account of revenue and related matter culminated into the establishment of schools, which leads to the art of writing being made public. When Herodotus, the acclaimed father of history visited Egypt during the age of pyramid, 3400BC-2700BC[6], papyrus was already in-used. Paper made from papyrus was therefore the major writing material in ancient Egypt. It was adopted by the Greeks and afterward by the Romans. The papyrus was not only used for production of books (roll or scroll) as noted, but also for correspondence, legal document and in our case, medical document. However, as time progresses, paper made from other plant fibres emerged around 8th and 9th centuries CE, thereby bringing into gradual and sharp decline the relevance of the Egyptian papyrus. Therefore, in Europe by the 3rd century CE, it began to be replaced with less expensive vellum, while its usage for book continued to *circa* 12th century.[7]

---

[5] B.L, Grant, *Care of Papyrus plant-Growing Papyrus in the garden*, http://www.garderningknowhow.com. *Papyrus writing material: Encyclopedia Britannica*, https://www.britannnica.com; Akpoveta O. A. and Edheku O. J. "Covid-19 Pandemic: Nigeria's Economic and Business Disruptions". *International Scholar Journal of Arts and Social Science Research*, vol. 2, no. 4, May 2020, pp. 14-31

[6] B.V, Rao, *World History*, New Delhi: Sterling Publishers, 2003, 21 &27.

[7] *Papyrus writing material: Encyclopedia Britannica*, https://www.britannnica.com.

Papyrus in the context of the paper or study is a medical document or scroll that contains varieties of prescriptions for multiple ailment or diseases, which in the view of the paper, the global dreadful Covid-19 pandemic is not out of the range of its prescriptions, though the name corona virus might have been unknown or not yet invented.

Therapeutic is derived from the Greek word *therapeutikos*, from *therapeuein*, meaning "to attend" or "treat".[8] Generally, the concept relates to healing, soothing, which may not necessarily be tied to medicine, but any activity that makes one feel rejuvenated. The psychological angle to this perception is rewarding, because Africans, apart from administration of drugs for healing or curing, need restoration of confidence on what is made in Africa including drugs. Shiel, puts therapeutic as the branch of medicine that is devoted specifically to the treatment of diseases. He further avers that therapeutic dose of a drug is the quantity needed to treat a disease.[9] Therapeutic as used in the paper is the art and science of treating a particular disease, in the case of the paper, Corona virus (Covid-19), which Ebers Papyrus appears to promise a great deal to treat. But as pointed out by Shiel, the issue of dosage or dose has been the challenge of African traditional herbal medicine. However, this could be overcome. Besides, the paper is not seeing the prescriptions of the papyrus from the traditional administration of it to treating Covid-19, but how the materials could be developed into modern tablets and capsules by African scientists as most known drugs are produced from plants.

Central to the discourse is the concept of Corona virus. The word *corona* is Latin, meaning crown.[10] It was first coined and applied to a virus's family known as corona viruses by June Almeida and David Tyrrell and was first published in1968.[11] Going by the name *corona,* the virus has an image resemblance of solar corona or halo. Corona viruses are enveloped single stranded Ribonucleic Acid (RNA) viruses that are zoonostic in nature known to cause symptoms ranging from the popular common cold to more serious respiratory enteric, hepatic and neurological symptoms.[12] The novel corona is called Covid-19: (Co=Corana, Vi= Virus, D=Disease, 19=2019). Covid-19 therefore, is a new stream of previous corona virus infectious diseases that is currently affecting thousands and millions of people across the globe.[13] It is new

---

[8] *Therapeutic*, https://www.vocabulary.com.

[9] W. G. Shiel, *Medical Definition of Therapeutic*, https://www.medicinenet.com.

[10] *Defining the words used in coverage of Wuhan Corona virus outbreak*-NPR, https://www.npr.org.

[11] *Corona virus: A Glossary of terms to help you understand the unfolding crisis,* time.com.

[12] S P. Adhikari, S.Meng, Y.Wu, *etal, Epidemiology, Causes, Clinical Manifestation and Diagnosis, Prevention and Control of Corona virus disease (Covid19) during the early outbreak period: A Scoping review*, https://doi.org/10.1186/s40249-020-0046,2020.

[13] Dr. Akinwumi , a practising Medical Doctor, Deeper life Christian ministry headquarters , Lagos constantly gave sensitization in all the programmes of the church during the two months or so period of the lockdown before Pastors W F.Kumuyi's message live transmission. His presentation may be regarded as one of the most lucid and best

even as the name indicates (Covid-19), because it was identified as the cause of the respiratory illness in Wuhan, Hubei province, China in December, 2019. The people infected with it could experience mild to moderate respiratory illness and may recover without treatment. Older people with underlying medical problems such as cardiovascular disease, diabetes, chronic respiratory disease and cancer whose body may not be able to mount up necessary immunity to fight it are at greater risk.[14] Against the backdrop of its sharp modes of transmission, regular washing of hands, cleaning of surfaces that are always touched, coughing and sneezing into bent elbow and social distancing have been prescribed.

Pandemic is derived from the word *pan*. The word *pan* is Greek's, meaning all.[15] Bailliere's Nurses's Dictionary defined pandemic as an epidemic spreading over wide area, sometimes all over the world.[16] The application of epidemic most times while conceptualizing pandemic gets people confused and as a result, it is interchangeably used. As an epidemiological concept Kelly, puts it as diseases that spread over a large area as in the entire country, continent and the globe.[17] This conception appears to have set pandemics and epidemics apart, but the fundamental unity is that both are diseases that are mostly infectious and spreads rapidly, but differ in time, space and effect. The geography of the consequence of pandemic is larger and longer in scale compared to an epidemic. Pandemic as used in the paper refers to Covid-19 whose origin is traced to Wuhan, Hubei province of China, which within a short time got to almost all countries of the world. A popular example of a pandemic is HIV/AIDS. In the subsequent part of the paper, historical consideration of Corona virus shall be considered.

Corona virus (Covid-19) Pandemic in Historical perspective

The Covid-19 Corona virus pandemic is not the first in human history. However, the divergence has been the epicenter and geography, spread and magnitude of deaths. The following among others, are test cases of devastating pandemics the world has experienced over the centuries and decades: the Justinian plague of the 6th century, which killed about 50 million people, the Black Death of the 14th century, with 200 deaths, Spanish Flu of 1918 leading to about 50 to 100 million deaths, more than the number of deaths recorded during world war 1, and HIV/ AIDS

---

sensitizations on Covid-19.

[14] Dr. Akinwumi , a practising Medical Doctor, Deeper life Christian ministry…,. See also, *World Health Organization(WHO)*,https://www.int.

[15] G O.Odeh, "Enhancing Nigeria's-South Africa Relations: History as a Panacea to Xenophobic Attacks on Nigerians" in *Nigerian Forum,* A Journal of World Affairs, Lagos: Nigerian Institute of International Affairs (NIIA), (40), 11, 2019, 424.

[16] B F. Weller (ed), *Bailliere's Nurses Dictionary for Nurses and Health Care Workers*, 26 Edition.

[17] J .Kelly, "*Epidemic" Vs "Pandemic" What Do these Terms Mean*?, https://www.dictionary.com.

pandemic that has killed more than 32 million people and infected about 75 million people since 1980s.[18] Others of global significance in recent times are: Severe Acute Respiratory Syndrome (SARS-Cov-2) with about 770 fatalities between 2002 and 2003, Middle East Respiratory Syndrome (MERS) in 2012, with 870 deaths, Ebola in 1976, which resurfaced in 2014, and the Covid-19 since December, 2019, which has killed about 422, 805 persons and infected many globally as at 11th June, 2020.[19]

In the last two decades or so, Corona virus has caused two horrible pandemics, the SARS and the MERS respectively. Besides, SARS Cov-2, six Corona viruses exist in human, namely: H.Cov-229E, H.Cov-OC43, SARS-Cov, H.Cov-NL63, H.Cov-HKUI and MERS.[20] As noted, the zoonostic nature of the Corona virus implies that domestic and wild animals such as camels, cattles, cats, bats etc., could be possible hosts. While it may be argued that generally, animal corona viruses do not spread among humans, there are exceptions. In the case of Covid-19, initial contacts were traced to Huanan Seafood market in Wuhan, China pointing to possibilities of early infections as a result of animal-to-person transmission. Consequently, cases were discovered among medical staff and persons with no history of encounter with the market or Wuhan, indicating human-human transmission.[21] Cases in African states with people without contact to China and other countries and continents ravaged by Covid-19 pandemic argues for the human-human transmission too. It typically spread via close contact with infected person through droplets from cough or sneezing. To date, it does appear there is no drug or vaccine for treating the novel Covid-19. However, the paper claims Ebers Papyrus promised solutions to it, but unfortunately undermined by Africans and the entire world. In the subsequent part, prescriptions of the papyrus and its possibilities to curing Covid-19 pandemic shall be explored.

Ebers Papyrus and its Therapeutic Relevance to Covid-19 Pandemic

Humans across time and space faced challenges of health and devised therapeutic to it. Africans and early Egyptians in particular caught in the web of health challenges, found medicinal means of solving it. Egyptians of old have considerable knowledge of diseases and prescribes cure to it. Herodotus notes that there was a high degree of specialization among Egyptian physicians.[22] One of the ways their expertise was showcased is in Ebers papyrus containing over 700

---

[18] B. Walsh, *Covid19: The History of Pandemic*, https://www.bbc.com. N. Le Pan, *Covid-19: Visualizing the History of Pandemic*, https://www.visualcapitalist.com.

[19]N. Le Pan, *Covid19: Visualizing the History of Pandemic*, https://www.visualcapitalist.com. *Covid-19 Corona virus Death toll, worldmeter*, https://www.worldmeters.info.

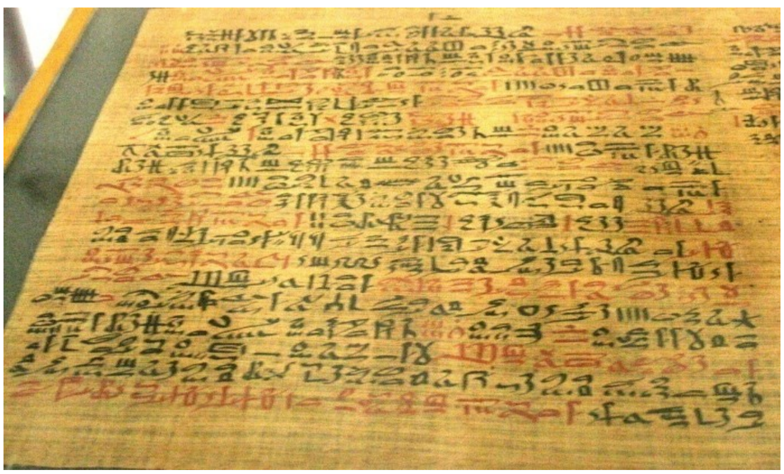
[20] S P. Adhikari, S.Meng, Y.Wu, *etal, Epidemiology, Causes, Clinical Manifestation and Diagnosis, Prevention…..*

[21] S P. Adhikari, S.Meng, Y.Wu, *etal, Epidemiology, Causes, Clinical Manifestation and Diagnosis, Prevention….*

[22] N. H. Aboelsoud, "Herbal Medicine in Ancient Egypt" in *Review*, Journal of Medical Plants Resarch,4(2),2010, https://www.academicjournals.org/JMPR.

remedies to various ailments.[23] The papyrus dates to about 1550 BC and regarded as one of the oldest and most important documents on general medicine yet recovered.[24] Edwin Smith an American adventurer residing in Cairo in 1862, is known to have bought it and put it as part of his collections up to 1869, before it was placed for sale and bought at Luxor (Thebes) in 1873 by the German Egyptologist and novelist, George Maurice Ebers.[25] Though the source of the papyrus is yet unclear, evidence from medical archaeology shows it was discovered at the leg of a mummy in the El-Assasif district of Theban necropolis. Evidence garnered from paragraph 856a indicates its earlier origin dating to the first dynasty 3000BCE, which made many, believed it was a copy of ancient book belonging to the reputable fathers of Medicine, Alchemy and Pharmacy, Thot.[26] Presently, the papyrus is kept in the library of Leipzig University, Germany. The reader may be interested in having a page view of the papyrus.

Plate 1: The picture below shows a page view of Ebers Papyrus



Source: "Ancient Egyptian Medicine, what is Ebers Papyrus?" in Egypt Guide, https://www.egyptprivatetourguide.com.

The above is the nature of the papyrus. It measured about 20.23 meters in length, 30 centimeter height and 110 pages. It is written in hieratic Egyptian writing, which resembles cursive hieroglyphics.

The significance of the papyrus rests on the quantum of herbal remedies and explanations of the categories of toxins it illuminates. Below are some of the herbs highlighted in the script:

---

[23] B .V. Rao, *World History*, 28.

[24] *New World Encyclopedia*, https://www. newworldencyclopedia.org.

[25] *Ebers Papyrus, Egyptian text, Britannica*, https://www.britannica.com. *New World Encyclopedia*, https://www. newworldencyclopedia.org.

[26] *New World Encyclopedia*, https://www. newworldencyclopedia.org. *Ebers Papyrus, Egyptian text, Britannica*, https://www.britannica.com.

I. Acacia (*acacia nilotica*): vermifuge- eases diarrhea, and internal bleeding, also for treatment of skin diseases;

II. Aloe vera-worms, relieves headache, soothes chest pains, burns, ulcers and skin diseases and allergies;

III. Basil (*ocimum basilicum*): excellent for heart functioning;

IV. Balsam Apple(*malus sylvestris*) or apple of Jerusalem- laxative, skin allergies, soothes headaches, gum and teeth, for asthma, liver stimulant , weak digestion;

V. Bay berry(*Myrica cerifera*)-stop diarrhea ,soothes ulcers, shrinks hemorrhoids, repel flies;

VI. Belladona-pain reliever,

VII. Camphor tree- reduces fever, sooths gums, soothes epilepsy;

VIII. Caraway(*Carum carvi; Umbelliferae*)-soothes flatulence, digestive, breath freshener;

IX. Cardamom(*Eletarria cardamomum;Zingiberacae*)- Used as a spice in foods, digestive, soothes flatulence;

X. Colchicum(*Citrullus colocynthis*) also known as “Meadow Saffron”, soothes rheumatism, reduces swelling;

XI. Common Juniper tree(*Juniperis phonecia; Juniperus drupacea*)-digestive, soothes chest pain, soothes stomach cramp;

XII. Cubeb pepper (*Piper cubeba; Piperaceae*): Urinary tract infections, larynx and throat infections, soothes headaches;

XIII. Dill(*Anethum graveolens*)-soothes, flatulence, relieves dyspepsia , laxative and diuretic properties;

XIV. Fenugreek(*Trigonella foenum-graecum*)- respiratory disorders, cleanses the stomach, calms liver, soothes pancreas , reduces swelling;

XV. Frankincense (*Boswellia carterii*)- throat and larynx infections, stops bleeding, cuts phlegm, asthma, stops vomiting;

XVI. Garlic(*Allium sativa*)- give vitality, soothes flatulence, and aids digestion, mild laxative, shrinks hemorrhoids, rid body of “spirits”(note, during the building of the Pyramids, the workers were given garlic daily to give them the vitality and strength to carry on and perform well), taking together with olive oil is beneficial for bronchial and lung (bronchial- pulmonary) problem including colds and influenza;

XVII. Henna (*Lawsonia inermis*)- astringent, stops diarrhea, close up open wounds(and used dye);

XVIII. Honey: Widely used, natural antibiotic and used as a base for healing unguents , as well as castor oil, coriander, beer and other foods;

XIX. Licorice (*Glycyrrhiza glabra*)-mild laxative, expels phlegm, soothes liver, pancreas and chest and respiratory problems ;

XX. Mustard (*Sinapis alba*) induces vomiting, relieves chest pains;

XXI. Onion(*Allium cepa*)-diuretic, induces perspiration, prevents colds, soothes sciatica, relieves pains and other cardiovascular problems;

XXII. Parsley(*Apium petroselinum*)- diuretic;

XXIII. Mints (*Mentha piperita*)- soothes flatulence, aids digestion, stop vomiting, breath freshener;

XXIV. Sandalwood (*Santallum album*)-aids digestion, stops diarrhea, soothes headaches and gout(used, of course in incense);

XXV. Sesame (*Sesamum indicum*)-soothes asthma.;

XXVI. Tamarind(*Tamarindus indica*), laxative;

XXVII. Tumeric (*Crcumae longa*)-closes up wound and for dying skin and cloth) and;

XXVIII. Poppy (*papaver somniferum*)-relieves insomnia, headaches, anesthetic, soothes respiratory problem and deaden pains.[27]

Others mentioned in the Papyrus are opium, cannabis and myrrh. Prescriptions of the papyrus are in-exhaustive. However, it promised great news to Africa and the global community in the fight against Covid-19 pandemic.

Given the symptoms of Covid-19, which includes, fever, dry cough, tiredness, aches and pains, conjunctivitis, headache, loss of taste and smell, rash on skin, difficulty in breathing, chest pain or pressure, loss of speech, diarrhea, among others in common and severe cases, the therapeutic for it may be located within the following prescriptions isolated from the above: Acacia (*acacia nilotica*), Balsam Apple (*malus sylvestris*) or apple of Jerusalem, Belladona, Camphor, Common Juniper tree, Cubeb pepper, Fenugreek (Trigonella foenum-graecum), Garlic (*Allium sativa*) , Henna (*Lawsonia inermis*), honey, Licorice (*Glycyrrhiza glabra*) , Mustard (*Sinapis alba*), Onion (*Allium cepa*) , Sandalwood (*Santallum album*) and Poppy (*papaver somniferum*).

Be that as it may, from the above, one notes confluence of functions in some of the material prescriptions. What should be done in the instance is appropriate blend of ingredients extracted from the concerned plants. In ancient Egypt as noted, the physicians were highly specialized

[27] *Ebers Papyrus 1500 BCE: Overview, Toxipedia,* www.asmalldoseoftoxicology.org. H. Aboelsoud, "Herbal Medicine in Ancient Egypt"…

and drugs were administered based on prescribed procedures considering the age of the patient, effectiveness of the drugs and seasons of the year. If this feat was achieved in ancient Africa, contemporary African physicians could do better with modern facilities at their disposal. The charge before African scientists and scholars is that, the therapy for covid-19 cannot escape the prescriptions of Ebers Papyrus. There is therefore an urgent need to get the above materials along with other necessary ones, extracted and tested for the production of drugs and vaccines for the novel Corona virus pandemic. The charge becomes crucial because Africa is rich with a lot of herbal resources that have possible answers to global health challenges. After all, Madagascar shocked the world as the first country that claim to have gotten the remedy to the dreadful Covid-19. Probably, its health experts and practitioners might have used one or two of the plants enumerated above in the Ebers Papyrus. It may be interesting to note that *Cyperus*, the plant from which papyrus derived its name is a native to Madagascar,[28] though the focus of the paper is not the medicinal value of it per say. However, Madagascar Covid-19 solution should serve as a wakeup call to all other African countries to look inwards for pharmaceutical solutions.

It should be noted that the solution to every societal problem is rooted in the history of the people. Thus, it does appear the headache of earlier generation is still the headaches of today's possibly with slight differences. This brings to the fore the idea of lessons of history, which points that; history is the sense and memory of a nation.[29] Though some historians scarcely agree with the idea that history teaches lessons or repeats itself,[30] it serves as a teacher for the future, because the rhythm of its changes may repeat itself in the sense that similar antecedents is bound to produce similar consequences. Collingwood as cited in Odeh, casts light on this. Thus:

> History has a value; its teachings are useful for human life; simply because the rhythms of its changes is likely to repeat itself, similar antecedents leading to similar consequences; the history of notable events is worth remembering in order to serve as a basis for prognostic judgments, not demonstrable but probable, laying down not what will happen but what will likely to happen, indicating the points of danger in rhythms now going on.[31]

History is replete with health challenges and solutions. Health challenges may have led to the development of Ebers Papyrus. The same challenges may have led to the development of drugs

---

[28] B.L, Grant*, Care of Papyrus plant-Growing Papyrus,….*

[29] G. O. Odeh, *Decolonizing African Medicines and Health System: Towards Post Covid-19 Continental Agenda.* (Unpublished). "The Endangered Specie: The State of History Subject in Secondary Schools" in *2011 Year Book, Key Science Academy*, Abuja: Yaliam Press, 29.

[30] B. V. Rao, *World History*, 5.

[31] G. O. Odeh, "Enhancing Nigeria's-South Africa Relations: History as a Panacea to Xenophobic Attacks on Nigerians" …, 429-430.

and vaccines in both ancient and contemporary times. Africa today looks up to America, Asia and Europe to solving her challenges including those in the field of health. Covid-19 pandemic is defiling all medical efforts, with numerous cases across continents. The relative minimal effect of the pandemic in Africa and the residual history of its ancient medicines show the possibilities of the continent rescuing the world from the grip of the pandemic.

Conclusion

Africa has a rich medical history that dates to antiquities. Colonial and imperial disarticulation and disorientation halted the continent's productive forces and consequently made the people look at their heritage with utmost disdain. Thus, Ebers Papyrus under review along with other home grown medical material is undermined in the fervid search for solution to the incurable novel Covid-19 pandemic. The destructive consequence of this cannot be properly gauged scientifically at the moment. However, it does appear that Africa, the cradle of man and civilization has continued to wallow in trouble in the midst of solutions. As it is one of the oldest medical documents yet recovered in human history, Ebers Papyrus has been neglected by Africa and the world in the cumulative fight against Covid-19. This paper therefore, draws the attention of Africa and the global community to the well over seven hundred prescriptions and remedies of the Papyrus, which it vehemently upheld; Covid-19 symptoms were aptly handled, though the name corona might be unknown. As an original home of man, rather than going to nations where man later emigrated, Africa should look inward; revisit Ebers Papyrus and other herbs to come up with the Covid-19 medicinal solution. Arising from the multi-dimensional nature of societal problems, scholars and scientists across disciplinary persuasions should come on board in the inquisitive search for solution to Covid-19 within the context of African medicines. This paper concludes that African governments, businessmen and well-wishers should as well join hands and support researches for further investigation along this line.

References

Africa, National Geographic: https://www.nationalgeographic.org.

N D. Palmer and H C.Perkins, International Relations.Third Revised Edition, India: A. I B.S Publishers, 2010,503

Population of Africa, Worldometer: https://www.worldometers.info.

B.L, Grant, Care of Papyrus plant-Growing Papyrus in the garden, http://www.garderningknowhow.com.

Papyrus writing material: Encyclopedia Britannica, https://www.britannnica.com; Akpoveta O. A. and Edheku O. J. "Covid-19 Pandemic: Nigeria's Economic and Business Disruptions". International Scholar Journal of Arts and Social Science Research, vol. 2, no. 4, May 2020, pp. 14-31

B.V, Rao, World History, New Delhi: Sterling Publishers, 2003, 21 &27.

Papyrus writing material: Encyclopedia Britannica, https://www.britannnica.com.
Therapeutic, https://www.vocabulary.com.
W. G. Shiel, Medical Definition of Therapeutic, https://www.medicinenet.com.
Defining the words used in coverage of Wuhan Corona virus outbreak-NPR, https://www.npr.org.
Corona virus: A Glossary of terms to help you understand the unfolding crisis, time.com.
S P. Adhikari, S.Meng, Y.Wu, etal, Epidemiology, Causes, Clinical Manifestation and Diagnosis, Prevention and Control of Corona virus disease (Covid19) during the early outbreak period: A Scoping review, https://doi.org/10.1186/s40249-020-0046,2020.
Dr. Akinwumi , a practising Medical Doctor, Deeper life Christian ministry headquarters , Lagos constantly gave sensitization in all the programmes of the church during the two months or so period of the lockdown before Pastors W F.Kumuyi's message live transmission. His presentation may be regarded as one of the most lucid and best sensitizations on Covid-19.
Dr. Akinwumi , a practising Medical Doctor, Deeper life Christian ministry…,. See also, World Health Organization(WHO),https://www.int.
G O.Odeh, "Enhancing Nigeria's-South Africa Relations: History as a Panacea to Xenophobic Attacks on Nigerians" in Nigerian Forum, A Journal of World Affairs, Lagos: Nigerian Institute of International Affairs (NIIA), (40), 11, 2019, 424.
B F. Weller (ed), Bailliere's Nurses Dictionary for Nurses and Health Care Workers, 26 Edition.
J .Kelly, "Epidemic" Vs "Pandemic" What Do these Terms Mean?, https://www.dictionary.com.
B. Walsh, Covid19: The History of Pandemic, https://www.bbc.com. N. Le Pan, Covid-19: Visualizing the History of Pandemic, https://www.visualcapitalist.com.
N. Le Pan, Covid19: Visualizing the History of Pandemic, https://www.visualcapitalist.com.
Covid-19 Corona virus Death toll, worldmeter, https://www.worldmeters.info.
S P. Adhikari, S.Meng, Y.Wu, etal, Epidemiology, Causes, Clinical Manifestation and Diagnosis, Prevention…..
S P. Adhikari, S.Meng, Y.Wu, etal, Epidemiology, Causes, Clinical Manifestation and Diagnosis, Prevention….

N. H. Aboelsoud, “Herbal Medicine in Ancient Egypt” in Review, Journal of Medical Plants Resarch,4(2),2010, https://www.academicjournals.org/JMPR.

B .V. Rao, World History, 28.

New World Encyclopedia, https://www. newworldencyclopedia.org.

Ebers Papyrus, Egyptian text, Britannica, https://www.britannica.com. New World Encyclopedia, https://www. newworldencyclopedia.org.

New World Encyclopedia, https://www. newworldencyclopedia.org. Ebers Papyrus, Egyptian text, Britannica, https://www.britannica.com.

Ebers Papyrus 1500 BCE: Overview, Toxipedia, www.asmalldoseoftoxicology.org. H. Aboelsoud, “Herbal Medicine in Ancient Egypt”…

B.L, Grant, Care of Papyrus plant-Growing Papyrus,….

G. O. Odeh, Decolonizing African Medicines and Health System: Towards Post Covid-19 Continental Agenda. (Unpublished). “The Endangered Specie: The State of History Subject in Secondary Schools” in 2011 Year Book, Key Science Academy, Abuja: Yaliam Press, 29.

B. V. Rao, World History, 5.

G. O. Odeh, “Enhancing Nigeria’s-South Africa Relations: History as a Panacea to Xenophobic Attacks on Nigerians” …, 429-430.